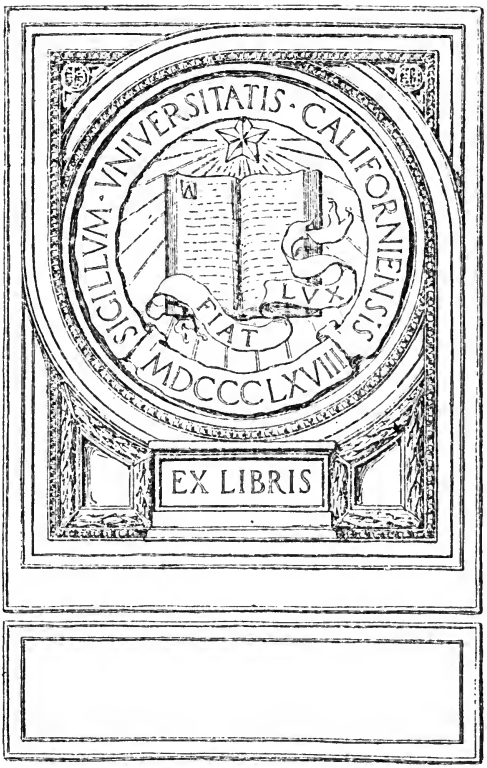
TOWN IMPROVEMENT

FREDERICK NOBLE EVANS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TOWN IMPROVEMENT

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TOWN IMPROVEMENT

A REVIEW OF THE PRINCIPLES BY WHICH PHYSICAL IMPROVEMENT IN THE TOWN OR CITY MAY BE ACCOMPLISHED, WITH OBSERVATIONS AS TO THE EFFECT OF SUCH IMPROVEMENT UPON THE LIFE OF THE COMMUNITY

BY

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"It ain't the guns nor armament, nor funds that they can pay,
But the close coöperation that makes them win the day.
It ain't the individual, nor the army as a whole,
But the everlastin' teamwork of every bloomin' soul."

RUDYARD KIPLING.

TO
THE MEMORY OF
CHARLES MULFORD ROBINSON
LOVING STUDENT OF TOWNS AND CITIES, INSPIRING TEACHER AND FRIEND

PREFACE

It is the aim of this volume to present to the citizen an outline of everyday methods, suggesting ways in which to set about working for the improvement of the community which each of us affectionately calls "the Home Town." The terms town and city are used interchangeably throughout these pages and therefore what is said applies to the large city as well as to the small town.

The student of sociology, of civil government, and of business, may be inclined to believe that too much has been assumed in the title, since we deal almost entirely with the improvement of those physical elements of which the town is made up. In its broad sense town improvement implies improvement not only in visible and tangible things, but in other lines also. These several aspects are intimately related, however, improvement in one leading inevitably to improvement in the others, so that we may say that we can approach town improvement from any one of the sides mentioned.

In recent years the study of civics is being made more and more a part of the regular curriculum in the higher grades of our public schools, and in its more advanced form is being studied with greater

seriousness in our colleges. The acquisition on the part of the prospective citizen of a sense of his relationship to public affairs is, of course, the aim of such study. It is hoped that this book may contribute some part to this end.

Use has been made of material from many sources, and credit has been given, it is hoped, where due. Special acknowledgment is to be made for criticism and suggestions rendered by the late Professor Charles Mulford Robinson, in an earlier stage of the manuscript production. Thanks are also due Dr. John Nolen for valuable suggestions as to chapter arrangement. This book does not pose as a self-appointed authority, but is to be taken rather as a guide. It is not really a book on city planning, though it may be considered an introduction thereto.

Most of the examples cited and practically all of the illustrations are purposely American. This, it is thought, may serve to bring home the idea that our own municipalities have a sufficiently strong tradition to build upon without relying altogether, as is so often done, upon inspiration from abroad, valuable as that is in its proper place and time. The views are not all lovely ones for, though this would make a more beautiful text, it would be telling but half a truth.

More detailed specific comment on various topics might be thought desirable to enforce and further

clarify the principles expounded, but it was early seen that to do so threatened to swell the covers beyond intended limits. With the utmost earnestness the reader is urged as he reads to call to mind scenes and conditions in his own town: the message which the book is meant to carry will thus be the better enforced and the small seed thus planted will be more apt to produce fruit.

FREDERICK N. EVANS.

Urbana, Illinois.

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TOWN IMPROVEMENT

INTRODUCTORY

Towns and cities result from a gathering together of population at certain points for facility in the transaction of business and the enjoyment of social intercourse. Each town marks a point of concentrated human activity. One fact which we should early recognize is that what comes about as communities appear and grow, is not that citizens come together with the idea of consciously making a town, but that the latter grows up to meet the needs of the citizens.

Where people live together in large numbers their environment should be made as healthful and as pleasant as possible. It is a good thing for any town if its citizens are able to say of it that they would rather live there than in any other place they know. It is a bad thing for any town if the citizens plan to come there only in order to accumulate sufficient wealth to live somewhere else; yet such towns can be named.

The General Relation of Town and Country.—If we were to divide the population of our entire land into three parts, and were to place next these divisions the term "city," "town," and "country," respectively, we should be able to form a rough, but on the whole a reasonably clear idea of the general conditions under which the people of our nation live.[1]

At first sight one is apt to think of the terms "town" and "country"—"urban" and "rural"—as opposed one to the other—even as antagonistic. The more we look into the matter the more clearly we see that the two are interdependent. Each mode of existence draws from the other for some of the necessities of life which the other produces.

The Divisions "Urban" and "Rural."—We shall not distinguish in our study between the terms "city" and "town," but shall use them interchangeably, thinking of both as "urban." This term in the U. S. Census Report for 1910, is applied to all communities having two thousand five hundred inhabitants or more.

The ratio of urban to rural population, and the relative numbers of communities of various sizes in the United States, is illustrated in the accompanying diagram which bears careful study.

Urban Drift.—The number of people who live

[1] F. A. Waugh, lecture at University of Illinois.

DIAGRAM I.

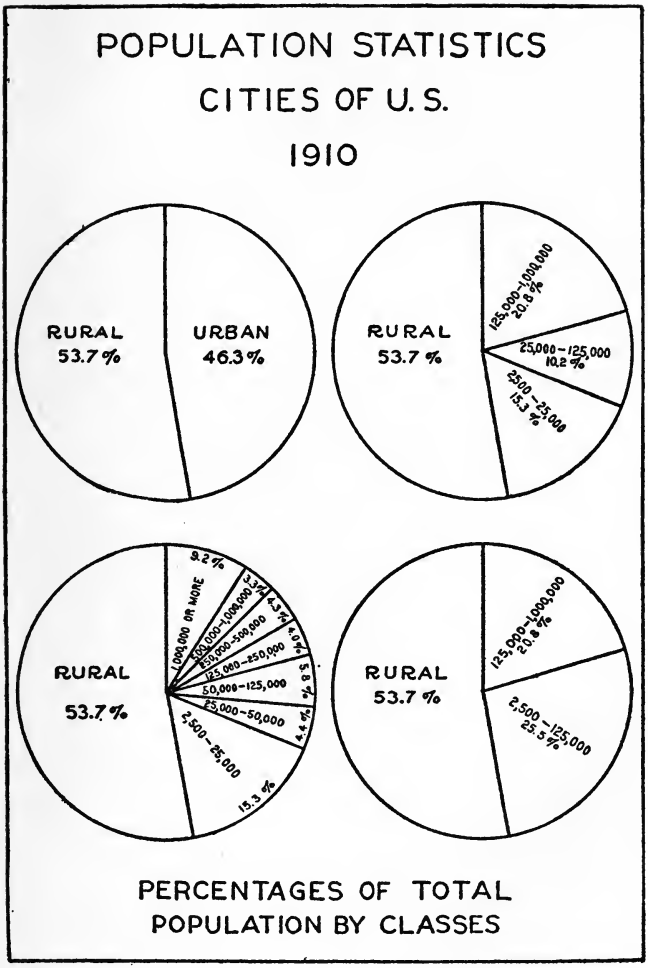


CHART SHOWING PERCENTAGE OF RURAL AND URBAN POPULATION, AND POPULATION IN CITIES OF VARIOUS CLASSES.

amid urban surroundings as compared with the number who live in the country is constantly changing, the balance during the whole of the last century swinging to the side of the city. Rural population has increased but not so fast as urban population.[3] There has been, in fact, a definite drifting of population toward our towns and cities. So observable has this movement been that it has had a special term applied to it, that of "urban drift."

The movement mentioned, if indefinitely continued could have no other result than the impoverishment of agricultural production, upon which, in the last analysis, the business and indeed the life of our whole population depends.[4]

The cause of urban drift is found to lie in the supposed greater attractiveness which life in a populous community offers. The inducement of shorter hours of work, and higher wages, modern sanitation, convenience in getting supplies to the

[3] The Census Bulletin, 1910, states that in every state and territory in the United States, there has been since 1900, an increase in total population, but in seven states there has been actual decrease in rural population.

[4] Far-sighted persons realizing this, have sought a solution of the problem in endeavoring to make rural life attractive, by supplying many of the conveniences and much of the social intercourse which is offered in urban existence. The Country Life Movement was inaugurated a few years ago with a definite commission appointed by President Roosevelt in 1908, for investigation of the problems concerned in it. See L. H. Bailey *The Country Life Movement*, p. 7, et al.

door, and facilities for amusement and social intercourse, are the main causes which have led many to forsake the farm and take up urban life, even though the real comforts of daily living prove, in many instances, to be far less. Immigrant population too[5] has flowed into crowded parts of our cities and there remained, merely in order that the newcomers may be near others of their own kind.

The Rapid Growth and Increasing Complexity of Towns and Cities.—So rapid and marked has been the growth of towns and cities throughout our land during the past hundred years as to have led to the significant statement that "the last century belonged to the city." [5] Everywhere there have sprung up commercial and industrial communities, housing populations earnestly engaged in the work of production of one kind and another.

Being a thing of simple parts at first, a town grows, until we discover in the metropolis a welding together of scientific forces which are beyond the ability of any one person to grasp. The city has well been called a "machine of machines." [6] Every-

[5] In 1780 the urban population of our country was said to be gathered into twelve communities worthy of the name of "city," comprising 4% of the total population of our land. In 1900 there were 545 such communities in the city class, comprising 33% of the total population, and the increase is still going on, e.g., in 1914, it has been shown that 43% of the total population of Illinois resided in Chicago.

[6] *The Modern City and Its Problems,* by F. C. Howe, p. 4.

day sciences are rendering it a still more complicated mechanism.

The Value of Early Attention to Improvement.—In the rise of towns and cities there is seen a development marked in many places by makeshift methods rather than farsightedness. As a community grows its needs also grow. Once adequate provision for water supply and sewage disposal become antiquated. With modern times, new methods of street paving and lighting recommend themselves as being more efficient and economical than old ones.

The town is a thing of intensive life. It is organic, never at a standstill. It either grows or it declines; and as long as it grows, constant attention must be paid toward guiding growth, and fitting it physically to perform its function.

The fact that citizens become accustomed to petty inconvenience and unsightliness, and even to danger from existing conditions, is accountable for much lack of attention to improvement. The statement that from the small town springs the larger need hardly be made, but it is worth while to point out that the community of small size should endeavor to "get right" with conditions early in its career. Larger communities, on account of the excessive cost of reconstruction, are often compelled to tolerate conditions which at an earlier day could have

been remedied by one stroke of the draftsman's pencil.[7]

The Relation of Physical Make-Up to the Life of the Town.—The science of medicine has shown that a human being's mental attitude, and even his tendencies toward good and evil are dependent in a surprising degree upon the condition of his bodily makeup. Readjustment sometimes changes the patient's whole attitude toward life.

The same fact of the dependence of inner conditions upon physical makeup holds true in the case of towns and cities. A clearing up of a clogged and unorganized street system means more business efficiency. An improvement of housing conditions works for better living and better morals. Substitution of good in place of poor water supply makes directly for better health, and finally, bringing to the town mind a sense of order and beauty in place of filth and unsightliness, will go far toward making for self respect and civic pride, and consequently for a better citizenship.

Our Study of Town Improvement.—Though towns and cities show differences, they are all of them alike in certain respects. Because human tastes and instincts are very much the same, we find that communities are subject to similar laws of makeup. Granting this likeness, it becomes possible to take up the study of improvement in an

[7] Below, p. 45, par. 1.

impersonal or composite way. Principles which apply to one town *will be apt to apply to others.*

Summary.—In the last century there has been a definite movement of population toward towns and cities. This movement has been called "urban drift." The chief reasons for this movement have been the increase of industrial development in our country, and the attractiveness of urban existence to the general mind.

Towns and cities increase in complexity of life and makeup as they enlarge and grow older. This fact makes necessary early attention to the proper arrangement of parts, since later readjustment is more costly and often even impossible. The condition of existing physical makeup affects closely the inner life of a community.

The fact that towns and cities exist as agencies serving the needs of beings of similar tastes and instincts, facilitates our study in that lessons drawn from the experience of one municipality may be applied to others.

CHAPTER I

FORCES CREATING THE TOWN—ITS LIFE AND GROWTH

FEW of us have ever paused to consider how our own town came into being. We have taken its existence for granted. But our town did not just happen. A definite force called it into existence at the very point at which it grew.

Forces Creating Towns.—Towns are to be thought of then as having logical origin and growth. They arise as has been already said, as the result of human needs. Few towns are made to order. "People," it is said, "cannot be uprooted and moved in large numbers and immediately adjust themselves to the different opportunities of a new environment." We are familiar with tales of booms and subsequent collapse in the history of communities whose coming into existence or whose later growth has been forced. The need for which towns arise, and their future growth can be anticipated to some extent it is true, but so varied are the influences affecting their being, that the town planner or the speculator in land values cannot pre-

dict with certainty just what will happen beyond the limited period of a few years.

The forces instrumental in the creation of towns and cities are fairly easy to distinguish at the outset of the town's history, but as the community grows, early purposes and aims become merged into others. A glance at the most prominent of the forces at work in the creation and growth of towns reveals the following: [1, 2]

1. Defense against Enemies.
2. Commerce.
3. Manufactures and Industries.
4. Political Forces.
5. Natural Healthfulness and Attractiveness.
6. Social Forces.

Defense against Enemies.—The principle of defense against enemies was one of the chief factors in the rise of towns in primitive times. Men first gathered together for the common protection of life and property. The rise of most of the cities of ancient times is to be traced directly to this origin. Athens grew about the Acropolis—a high hill which could be readily defended and far enough removed from the seacoast to be safe from invasion by sea. Paris grew up upon the small

[1] The consideration of these forces is drawn with some modification from the excellent work of R. M. Hurd, *Principles of City Land Values*," pp. 19-21.

[2] Cf. *The American City*, by Henry C. Wright, Chap. I.

islands of the Seine, surrounded by swampy land to the north and south. Many of the towns of England and the Continent grew from early Roman Camps. The suffix "Chester" attached to the names of many English towns is but a perversion of the Latin *castra,* camp.

The influence of this force in the creation of towns is none the less apparent in our own country. A number of the cities along the Atlantic coast owe their existence primarily to the idea of defense, New York, formerly New Amsterdam may be said to have arisen under the shadow of the old Dutch fort, at the point of Manhattan Island.[3] From this crude redoubt has arisen the most splendid of our American cities.

Parallel with the thought of protection against enemies, we find a gathering of inhabitants about the walls of medieval monasteries. In our own land many of the towns of California owe their origin to the settlements which rose about the old Spanish missions. As time goes on this factor of defense becomes of less and less importance in the rise of towns. Whereas the force first considered was that of "safety in numbers," later soil more favorable to town growths was to be found.

Commerce.—A second influence is that of commerce. The transportation of commodities from

[3] Cf. Irving's *Knickerbocker History of New York* for a humorous account of early New York Life.

one part of the earth to another has ever been, next to the primitive end of securing safety and protection, one of the most important activities of mankind. To exchange that which one has in superfluity for something of which one has need for the comforts and conveniences of life is the underlying idea of commerce. Where the flow or transportation is uninterrupted from source to destination the direct influence of commerce on the growth of cities is comparatively slight, but where there is a definite break in the transfer of goods from one route to another, as from ships to train, or from one railroad line to another, facilities for the handling of these are necessitated. The establishment of houses for persons in charge of the work and the building of shops of many kinds, is added to the problem, until we find springing up about such points towns of large extent. It will be worth while to call to mind such cities as Liverpool, San Francisco, and Boston as coast cities, Duluth, Chicago, and St. Louis as interior cities at the side of water, and Omaha as a city whose existence is mainly owing to a former point of break and transfer in an overland transportation system. New York, a site primarily selected for defense, owes its phenomenal growth to the fact that it lies at the point of easiest access for the products of the Middle West through the Appalachian Range to the Atlantic coast.

Manufactures and Industries.—Manufactures and industries have become of increasing importance in the growth of towns and cities. Indeed it may be said that of late years no other force has been as powerful. The nineteenth century has been rightly spoken of as "almost exclusively an industrial product."[4] As diversified industries as are to be found in this country never before existed in any country.[5]

In earlier times towns and cities were more self-sufficient than we find them to-day. By this is meant that just as the Colonial homestead was the center of a varied industrial life—supplying, by dint of necessity, its own needs, so the town of former times was much more industrially independent than that of the present. Our towns' industries are becoming specialized in a way never before dreamed of; for example, with reasonably cheap transportation a town in Michigan can devote its industrial energies almost exclusively to the manufacture of parlor sofas, and depend on a city that is hundreds of miles away for the supply of its breakfast food.

The creation of towns solely by manufactures is not common.[6] As a rule industries are drawn to

[4] *The Modern City and Its Problems,* by F. C. Howe, p. 48.

[5] Noticeably rapid growth in manufacturing towns is to be seen in the United States, England, and Germany, where industrial growth has been very extensive.

[6] We do find instances of towns such as Pullman, Illinois,

the town after its establishment, attracted there by facilities for transportation and means for the housing of employees, reasonably cheap land for building sites, and abundant water. Such has been the case of such towns as Akron, Ohio, which in a period of seventeen years has shown a quadrupling of its population, owing to the enormous growth of the rubber business.

Political Forces.—Though accountable for the establishment of but few towns and cities as compared with the forces spoken of, political considerations have been accountable for the rise of some very important cities. Petrograd and Berlin owe their situation to the fact that they were considered geographically desirable locations for the capitols of nations. Washington, D. C. was located quite arbitrarily, as a convenient point in respect to the thirteen original states, which lay along the Atlantic coast. Evidence of the same force may be seen in the location of such capitol cities as Columbus, Ohio; Sacramento, California, and Springfield, Illinois.

Once such cities have been established, their growth is assured in proportion to the prosperity and political importance of the state or nation which they represent.

Gary, Indiana, and others which have risen about the establishment of industrial interests at those points. At Pullman were established the works of the Pullman Car Company, and at Gary a large steel industry.

Natural Healthfulness and Attractiveness of Site.—Certain towns in Florida, in California, in the mountains, and elsewhere, owe their founding to the fact that they offer to those in search of more pleasant environment a good climate, pure air, and beauty of scene. Denver and Colorado Springs furnish us with examples of this. Some communities, such as Battle Creek, Michigan, and Saratoga, New York, have come into prominence as places where sanitaria or springs are situated.

Social Forces.—A force more subtle than those named is that called the *social force.* Though its operation is sometimes the reason for the town being founded; more generally it is the cause of later development. Many towns owe their growth if not their founding to the fact of an educational institution being established there as Cambridge, Massachusetts, which is the seat of Harvard University. The social force naturally gains in momentum as the town enlarges. Where numbers gather together, there others congregate, not, at the present day, because there is safety in numbers, but because in numbers there is inspiration. This social force is largely accountable for New York's late growth, and for that of other prominent cities which one may call to mind. Pleasure resorts owe their development to this social element. This force is evident in many less prominent communities; we have only to recall instances of the moving of re-

tired farmers into town giving as a reason that "that is where the old friends are."

The Life Cycle of the Town.—As towns and cities grow, we usually find evidence in their life of several or all of the creative forces mentioned; for example, a town which grew up as a shipping point may develop into a community in which industries are first.

Constant change and progression, is taking place within the town itself. Sections in it devoted to one activity may be later devoted to another. The retail shopping district in cities is often seen moving gradually on into the older residence section, which in turn retreats unwillingly, but steadily before it.

An interesting parallel can be observed between the life cycle of a town and that of a living body. Both pass from youth into adolescence and on into maturity. In the history of the town's life there is apparent a real struggle for existence. Some towns survive for centuries, are almost eternal, others have passed into oblivion or are remembered only in classic story. The demise of a town may have been violent and sudden, as from earthquake, volcanic burial, fire or flood, or it may have been slow and gradual. The ancient and prosperous city of Ephesus, mentioned in Scripture, died a natural death, due to the filling in of its once excellent harbor by drifting sand.[7] In dredging, harbor cities

[7] *Principles of City Land Values,* by R. M. Hurd, p. 22.

to-day possess a means of continuing life which the cities of ancient times did not have. As in the case of human ills, modern science has come to the rescue. A town's death, on the other hand, may be due entirely to economic reasons, as when there is no longer a demand for a certain commodity produced, or to an exhaustion of a once abundant ore. This has come about in the history of many of the gold mining towns in the West. The community's growth is then checked, its formerly busy stores are closed and its inhabitants move away.

Under favorable conditions the life of towns and cities is of indefinite length, the chances of winning through and of becoming a great city, depend partly upon economic conditions, and partly upon the character and energy of the citizens. Temporary disasters offer only temporary hardship. San Francisco, in its early history is said to have been burned six times in eighteen months,[8] but so dauntless was the determination of the forty-niners, and so disciplined were they to hardship, that the city rose again and again, even as it has in its present form after the disastrous fire of 1906.

The Town as an Organism.—The suggestion of the life cycle through which the town passes, and the fact of its increasing complexity[9] leads to a

[8] Ref. *An Intimate History of California,* by Gertrude Atherton, p. 151.

[9] Above, p. 5, par. 2.

consideration of the town's organic character. All of its elements, such as markets, public buildings, streets, and transportation facilities are the result of a clear evolution, arising from necessity. An interdependence exists between all parts, each contributing toward the fulfillment of the purpose of the whole.

In the business section of the city we have what resembles the heart of this municipal organism; in the flow of life along the streets and in the water and sewer mains buried in the ground, we have a distinct circulatory system. The lungs of the city are the parks and open spaces, which must be of sufficient size and number to supply the city population with needed fresh air. The highways and railroads are like hands reaching out to bring in nourishment. The city has a mouth in the point of entrance of highways and railroads. Further, in its electric light and telephone lines we find a nervous system not unlike that of a living body. In its administrative center there is evidence of a mind controlling action; finally it may be said that in the aspirations and sentiment of its citizenship, the city gives evidence of having a soul. When all is said and done, it is for the nourishing and development of this that the other agencies are designed.

Individuality of Towns.—All towns possess individuality. Even when climate and geographic

situation seem to decree that communities should be made in the same mold, we find that towns like people, steadily refuse to be produced identically alike. Conditions of site, of purpose, and finally of individual taste prevent it. We need not go to our Baedeker, nor to a collection of maps to see the immense variety that may be found in ground arrangement. Even supposing that town layouts were identical, there would still be found differences in the form of buildings and street furnishings that would render towns unlike in appearance. To the town improver this individuality is a very real and interesting thing.[10]

Summary.—Towns are not made to order; rather, their rise is the result of certain human needs at certain points. The principal forces calling towns into existence are the following: (1) Defense Against Enemies; (2) Commerce; (3) Manufactures and Industries; (4) Political Forces; (5) Natural Healthfulness and Attractiveness; (6) Social Forces.

Towns and cities pass through a life cycle in progressing from youth to maturity. Constant change and progress is going on in the life of the town as a whole, and in its various parts.

The community is comparable to a living organism with various organs evolved from use. Towns possess marked individuality.

[10] Cf. *Town Planning in Practice,* by Raymond Unwin, Chap. II.

CHAPTER II

THE TOWN PLAN IN GENERAL

LET us take up the plan of some town, preferably a plan with which we are not familiar, because such a plan will help our present impersonal examination.

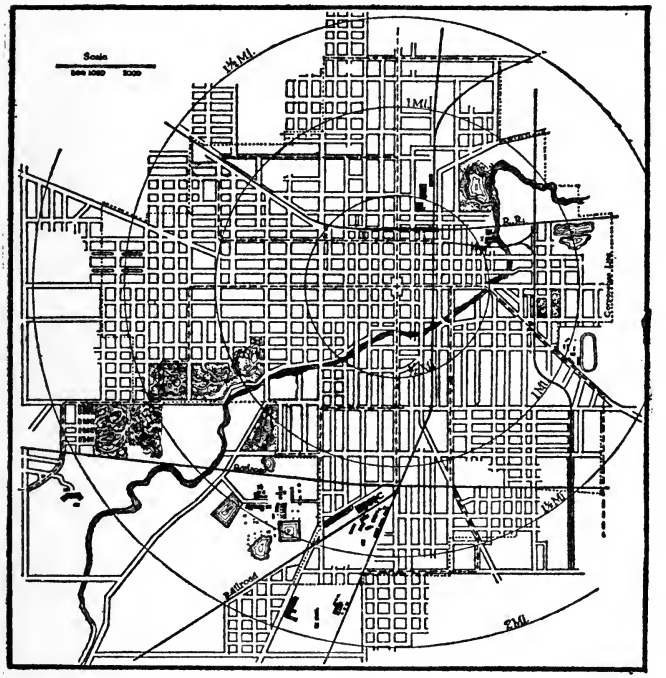
Look at this plan. Prominent on the sheet before us are to be seen curious double lines which cross and recross at different angles. Toward the center the lines converge and become irregular. These are the streets. Though they are the most noticeable thing by far, they do not entirely constitute the plan. It is in the areas that lie between that the real life of the town is carried on.[1] (Vid. Diagram II-A.)

Looking further at the plan before us we see black lines representing railroads crossing the sheet seemingly at random. We see also areas showing the position of parks. Shaded forms, like small toy building blocks, represent schools, hospitals and

[1] A helpful suggestion is that of regarding the town plan as made up of solids and voids—the solids being the blocks or space between streets, the voids the streets themselves. —Figure used by F. L. Olmsted, Lecture, Havard University.

other public structures. Here and there are irregular spots marking the sites of industries. If we were to take up another town plan we should notice

DIAGRAM II-A.



THE PLAN OF A TYPICAL MODERATE-SIZED AMERICAN COMMUNITY.

that, though it showed an entirely different pattern of lines and areas, much the same features would be found scattered over it; in other words, it is to

a certain extent similar to the plans of other communities.

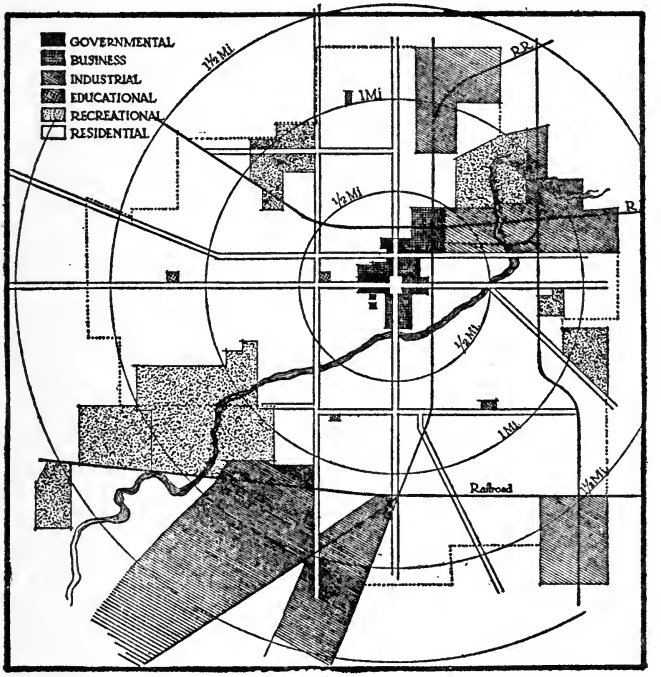
The Town Plan; A Patchwork of Activities.—This plan is the skeleton as it were of an underlying patchwork of activities, representing the town or city's life. (Vid. Diagram II-B.) For convenience the most important of these activities may be named as follows:

1. Business and commercial.
2. Industrial.
3. Governmental or administrative.
4. Educational.
5. Health and Recreational.
6. Residential.

As we study plans, we find that there is, broadly speaking, a usual place or position on the map where each of the activities mentioned is to be found. We can even speculate with reasonable accuracy on a strange plan as to what sort of activity is most in evidence at any particular point. Recognizing certain lines as streets, others as railroads and shore lines, and noting their arrangement, we may read the past life history of the town, a good deal as the geologist reads the story of the elements from a rock's surface, or as a forester tells the conditions under which a tree grew, by its general shape and branching. Let us examine into the activities named.

Business and Commercial.—The point of convergence of street lines that one sees on the plan

DIAGRAM II–B.



THE SAME PLAN WITH THE LOCATION OF VARIOUS ACTIVITIES MARKED IN PATCHWORK FORM.

coincides in a general way with the business center of the city. Here property values are highest, and here business acitivity is most concentrated. The

business of a down-town district is of several kinds, consisting of (1) the shipping and warehouse section, where incoming or outgoing commodities are handled. This portion lies naturally near railroads or water shipping points. (2) The wholesale section, where goods are stored pending distribution to retail merchants. This usually lies between the shipping and the retail district. (3) And lastly, the retail and office section, which lies near the center of the town within easiest access from all parts.

Industrial Section.—The industrial district is commonly removed from the heart of town, in proximity to some water body and to railroad lines, typically toward the edge, though as towns expand, industrial plants may be found well within the town's limits.

Government and Administrative.—The administrative center may be looked for just apart from the retail business center, its most favorable location as regards town activity being in a position which does not cause a division of the retail business district.

Educational.—Features in this group include schools of all kinds, churches, libraries, art galleries, theaters, etc. The location of these varies according to local needs. Generally schools and churches lie within the residence section; libraries, art galleries and theaters are naturally found more centrally located.

Health and Recreational.—In the health and recreational group belong plants for water supply and sewage disposal, hospitals, and park areas, whose typical situation is away from the business center and nearer the edge of town. However, among the latter are open spaces distributed throughout the town, in general the smaller toward the center, the larger farther out.

Residential.—The homes of the citizens claim more of the town's area than any other of the activities mentioned. They permeate all parts, even the crowded downtown portion where people are to be found living above shops and perhaps in crowded tenements. For the most part the residential section forms an irregular, broad outer rim, the extensive homes being farthest removed, the smaller lying nearer to the center.[2] A noteworthy fact in this connection, brought out by J. S. Nettleford, is that poor people live on more expensive, the rich on cheaper land.

The Location of Towns.—"Location" and "site" are not identical. The term *location* in its broad sense is closely linked with the purpose for which the town came into existence. *Site* has to do with the existing topographical features in a particular vicinity.

[2] The retirement of homes before the on-creeping business section has been spoken of above. Chap. I, p. 16, par. 3.

There are various general purposes which towns serve, as evidenced by their location: there is, for example, the seaport town found usually in a bay, where shelter from the high seas may be secured to shipping. Such a town is usually situated at the innermost point where the carry by water may be for as great a distance as possible.[3] Philadelphia is such an example. Lakeport towns, as Duluth and Buffalo, correspond with this group in location.

Then there are manufacturing and industrial towns, located at points where raw materials can be most cheaply assembled. For example, the region from Pittsburgh to Cleveland is a region of iron and steel mills; at this point coal from Pennsylvania meets the iron brought from the upper lake regions, and an immense industry of steel milling has there sprung up. Fruit and grain towns are located at the shipping center of the regions where such products are raised. The list might be indefinitely extended.

The Town Site.—"Site" implies, as has just been said, a consideration of local topographic features over which the town spreads, features which are incorporated into the plan of the town as it develops; thus we speak of a level site or an irregular site, having in mind the form of the ground upon which the town grows. Streams and water bodies are a part of such. The effect of site

[3] *Principles of City Land Values,* by R. M. Hurd, Chap. III.

upon the development of the town or city is great, but so much has been accomplished by the ingenuity of man, enabling towns to adapt themselves to site, that we may say that towns grow equally well on any site, though naturally some sites involve greater problems and slower growth than others.

The Relation of Site to Civic Beauty.—Beauty, ever a desirable asset for a town or city, is dependent in a comparatively small degree upon site. This should be an encouraging thing for those towns which are born unblessed with natural beauty of location. It must of course be said that some locations favor beauty more than others, but "of itself (the site) can neither secure nor prohibit civic beauty. A dozen cities make some pretense of splendor without the slightest regard for the features of their site, and a hundred are plain or ugly on a site that might have been rendered splendid." [4]

Two further considerations in regard to civic beauty in its relation to site are worthy of notice; the first is that most of the world's great cities lie by the side of water, and the second that most of them are situated on uneven ground.[5]

[4] *The Improvement of Towns and Cities,* by C. M. Robinson, Chap. I, p. 1.

[5] Ref. ibid., p. 3.

The Relation of Site to Utility.—Unlike the relation of site to beauty, the relation of site to utility is extremely vital. We may assume a town's original location to be due entirely to a regard for ideas of use. The question of usefulness being the determining factor in choice of site, the second consideration is whether, as the town grows and expands, it has made the most of the site upon which it stands. The original activity, be it flour mill, wharf or warehouse, may be trusted to have made good use of the immediate ground upon which it was placed, else another site would have been chosen. A vital question then arises concerning the use of the rest of the area round about.

Various sites suggest various uses of the ground in streets and open spaces. The town in its effort to secure efficiency must recognize that a wrong use of the site or topography means waste and discomfort to the town itself.

Summary.—The town is a patchwork of activities more or less similar in various communities. These activities are: 1. Business and Commercial, 2. Industrial, 3. Governmental and Administrative, 4. Educational, 5. Recreational, 6. Residential. Though the boundary of each group merges, each has a typical place on plan.

The *location* of a town or city is closely bound up with the purpose for which it came into existence. *Site* has to do with topographical conditions,

and plays an important part in influencing the general layout of towns. Though a beautiful site is favorable to natural beauty, beauty may be secured by a town having a commonplace site, through proper effort on the part of the builders.

CHAPTER III

THE STREET SYSTEM

THE streets were seen to be prominent features on the plan. Like the veins and arteries of the body, their business is to conduct the currents of life on their way from point to point.

The Importance of Streets.—The importance of streets to the life of the community is very great. In the history of civilization, highways have always played a prominent part. Though no longer the sole means of communication between communities, their necessity is still recognized, as proven by the fact that the art of road making is being carried to-day to a degree of perfection never before attained. Of such recognized importance are the streets of modern cities considered, that we find the department of streets among the foremost activities of any city government.

The town or city finds it expedient to devote a larger per cent of its area to streets than is commonly supposed. The amount averages from 20% to 40% of the total city area.[1] In New York,

[1] See also *Town Planning for Small Communities*, by C. S. Bird, p. 49.

35% of the area is taken up by streets; in Washington, D. C., the figure is as high as 54%. The land used for street purposes is theoretically of great marketable value. It is evident then that streets should so be planned that valuable land be not thrown away,[2] and that the street system should render a proper return in efficiency to the city. If the streets of a community are ill planned, an extra burden is placed upon the community. Loss of time and temper are but a part of the toll of a poor street system; direct financial loss as well is entailed.

Four Types of Street Systems.—The types of street system upon which towns and cities have been laid out are in the main four, viz.:

1. The Irregular or Meandering Type.
2. The Concentric Type.
3. The Diagonal or Radial Type.
4. The Perpendicular Type.

The order given is that of their chronological or historical development. It will be necessary briefly to consider these types one by one, looking

[2] As an instance of the value of the area laid out into streets, "it has been estimated that if valued on the same basis as adjacent private property, land reserved for streets would be worth over two billion dollars in New York City alone, or about one-tenth of the reckoned value of all the farm land in the United States." *Principles and Methods of Municipal Administration,* W. B. Munro, Chap. III, p. 74.

for the merits of each as far as possible. (Vid. Diagram III.)

The Irregular or Meandering Type.—The free or meandering type of street development in a town results in most cases from spontaneous growth—from the fact that the town has grown without previous planning. New England coast towns furnish interesting examples of such street arrangement. The type does not necessarily imply primitive government, though it is frequently an accompaniment of it. Such street lines result from the fact that obstructions or grades of uneven land surface have caused a deviation from direct lines of travel.

Since a route around a hill is practically as short as that over it, and since there is a distinct gain in the easier grade thus attained, it follows that the curving street is not an illogical method of lay out. Indeed, in some sections distinct advantages may result from the curved street, namely increased interest and greater attractiveness, a fact which to-day is often taken advantage of by real estate developers in laying out tracts upon uneven ground. Still another advantage of this type of street system in a residence tract is a discouragement of through traffic.[3] This type loses effectiveness, however, where directness and quickness of getting from point to point are essential, but it has

[3] Below p. 46, par. 2.

DIAGRAM III.

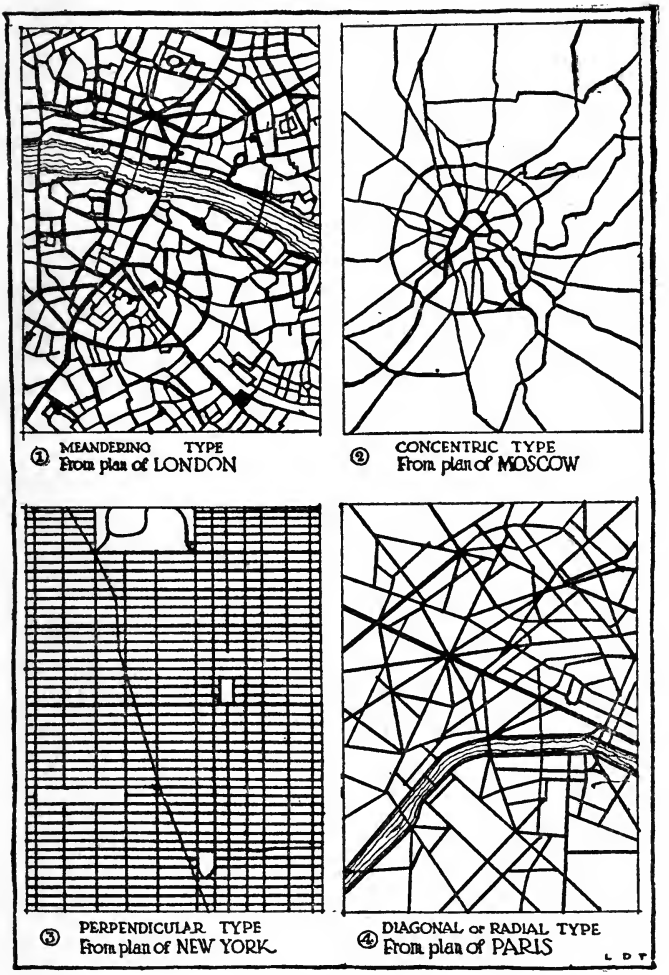


ILLUSTRATION OF VARIOUS TYPES OF STREET SYSTEMS.

distinct merits where easy gradient and picturesqueness are desired.

The Concentric Type.—When towns outgrew the necessity of surrounding fortifications, as was the case of many of the medieval towns of Europe, the natural procedure in the establishment of new streets in outlying areas was to throw out a ring of new thoroughfares about the old bastions of the town. In this way the concentric system came into existence. The city of Vienna shows an example of this method of street layout, as do certain parts of the city of Frankfort and Paris. It is not a common type in America for the reason that we have not had the stage of walled towns which generally preceded it. The type affords an easy system of passage about the town from one outer locality to another. It suggests the possibility of the boulevard system in its true sense, that of a circular drive about the edge of a city. German town authorities which have been wont to give more than the usual attention to planning for future growth have frequently planned for such town extension by a series of outer rings or zones to be occupied when the growth of the municipality should warrant. Such plans exhibit the concentric type of street layout mentioned.

The Diagonal Type.—In its pure form, the diagonal or radial type is a distinctly modern idea. However, a focusing or converging toward the

center of inflowing highways and arterial thoroughfares is to be found to some extent in nearly all towns. The true radial system of street plotting is a French development, the idea resulting from the geometric platting of the great royal wooded parks through which diagonals were cut to allow hunting parties to get quickly from point to point. Briefly speaking, the diagonal system consists of a convergence of certain streets at one or more points on the town plan, the diagonal way representing routes of direct access between them. Each focal point thus becomes a hub, star, or "round-point," as it is called, from which radiate the various converging lines as can be seen on any plan of Washington, D. C., laid out by Major Charles Pierre l'Enfant, under the direction of General Washington a few years previous to 1800.

The Perpendicular Type.—Lastly, there is a type of street layout which, in our own country, has been so universal, that an introduction to it seems unnecessary. This is called the *perpendicular,* also termed the *checkerboard* or *gridiron* type.[4]

The use of the perpendicular plan of street system has been so general with us that it has some-

[4] Explanatory note.—"The term gridiron plan presupposes a block whose length is much greater than its width, as in New York City. The checkerboard plan that the block is square." Cf. *City Planning,* by Charles Mulford Robinson, p. 14. The term *perpendicular* therefore is the most acceptable as it embraces the other two.

times been spoken of abroad as the *American System.* But it would be a mistake to suppose that it is an entirely modern invention. Towns centuries ago were laid out in this way, as illustrated in one ancient town in Egypt near the pyramids, and in ancient Alexandria. Towns here and there in all ages have been platted with perpendicular streets,[5] but its use over a whole town's area as towns grew was uncommon in ancient times for the reason that a somewhat advanced engineering knowledge is necessary to its accomplishment on a large scale.

The reason for the widespread use of this plan lies in several directions. It has often been found necessary to lay out whole or considerable parts of towns ahead of the time of their occupation. The perpendicular system was found to lend itself readily to such a purpose. But being a system that is easy to plan, easy to lay out, and easy to record, it is clearly a case of platting along the lines of least resistance. The facility with which it can be done has led to its use where a less rigid system would have been far more logical.

The advantages of the perpendicular style, besides its ease of execution, are that the resulting rectangular blocks give well shaped block units, in other words, the maximum area of usable land.

[5] *Ancient Town Planning,* by F. Haverfield, and *Town Planning in Theory and Practice,* by Raymond Unwin.

With straight streets, too, there are fewer engineering problems. On the other hand its disadvantages must be noted. It too often disregards topography, resulting in grades not easy either for foot or wheel traffic. It necessitates going about two sides of a triangle to get from any one point to any other not on the same street. The monotonous appearance of block after block of equal size, and the usual lack of termini for the eye, are other disadvantages to be weighed. And further, straight streets frequently act as funnels for the sweep of cold or dust-laden winds.

With the perpendicular type of street layout there frequently comes the problem of the alley system. Though alleys are to be recommended in business districts as convenient for the delivery of goods which otherwise must be piled upon front sidewalks, the existence of alleys in residential sections sometimes becomes a menace to the health and appearance of the bordering neighborhood, and has even been known to bring about grave social problems in some cities.[6]

General Observations upon the Proper Street System to Employ.—Though one may have a

[6] Notably in Washington, D. C., where alleys at the rear of deep lots became the retreat of such a low class of humanity that proper policing of them proved impossible. Legislation has since been enacted after a hard fight which has solved the problem and "cleaned out" Washington's alleys.

preference for this or that street system, to condemn all but one type for use would be to fail to take advantage of the merits of the others when occasion arises. The truth is that each system is proper under certain circumstances, dependent upon ground surface and the demands of traffic.

The street system of a town may very properly be a combination of certain of the types mentioned, but one of them will always dominate. For example, over a perpendicular or irregular plan, we may imagine diagonals run converging in strong focal points on the plan. The result would presumably give a very efficient street system.

Various Uses of Streets in the Street System.— A study of the street system would be incomplete were we to stop with the enumeration of types of general plans, important as these are. A further classification must be made, that according to the purpose which streets serve. In any system the following kinds of streets will be seen:[7] (1) There are the arterial thoroughfares leading from the outlying districts toward the center or connecting main focal points, such as passenger depots and business portion. (2) There are the streets of the wholesale, industrial and office districts, whose chief function is to carry business traffic and heavy hauling. (3)

[7] Cf. W. B. Munroe, *Principles of Municipal Administration*, p. 79.

There are the streets mainly given over for retail shopping trade, with its more rapidly moving and lighter traffic. (4) There are the main residential streets, (5) the minor residential streets or the streets of quiet homes, (6) the parkways and boulevards, (7) and finally the alleys and service courts.

Each of the streets mentioned comes into being to meet a separate demand, and its width and alignment should be such that it may properly do its work. In nearly all communities there are some streets which fall short of properly meeting conditions because they were constructed without due thought of purpose. The further relation of layout to use will presently appear.

Summary.—The streets of a town are of importance in carrying the currents of life from point to point. Street arrangements differ in various towns, conforming to one of the following types: 1. The Irregular or Meandering Type, 2. The Concentric Type, 3. The Diagonal or Radial Type, 4. The Perpendicular Type. Each of these has its advantages and disadvantages for universal use. Under certain conditions, any one, or a combination of more than one may be proper.

It is seen that whatever the type of street system may be, the streets should be planned to serve definite purposes which may be classified as (1) thoroughfares or arterial streets; (2) streets of

wholesale, industrial and office districts; (3) streets in the retail shopping section; (4) major residential streets; (5) minor residential streets; (6) parkways and boulevards; (7) alleys and service courts.

CHAPTER IV

TRAFFIC CIRCULATION

NOWHERE is the living quality of the town more evident than in its traffic flow. What a blood circulation is to the living organism the flow of traffic is to the town or city. It is the pulse of the community. It is the means by which the town is nourished and by means of which its life is carried on. We must regard the question of the proper flow of traffic, therefore, not as a superfine consideration, but as a fundamental need.

The Relation of Traffic Flow to Business and Living Conditions.—When local transportation is able to move as it should, with directness and without loss of time, traffic is in a normal state, and conditions of business and living are benefited; but when it is impeded in its progress the result is a lowering of efficiency which is felt sooner or later in living conditions and in business. What the conditions are which impede the flow of transportation and how wrong conditions may be remedied, we shall endeavor to discover.

Traffic flow bears a close relation to the cost of

living. Inability to transport commodities quickly and directly results in an increase in prices. The relation is understood when we are told that it costs more to carry materials across St. Louis from wharves to wholesale houses than to transport them the whole length of the lower Mississippi River.[1]

The Problem of Modern Transportation.— Within a generation the character of traffic in towns and cities has not only changed greatly, but it has enormously increased. With the advent of power-driven vehicles some of the principles which served formerly no longer apply. The increase in the volume of traffic within our growing cities has been due in part to an increased radius of travel by the new means, and in part to the bringing together of population more closely into office buildings and apartment houses. Many an old channel is thus called upon to fulfill new demands.

When considered in this way it is not surprising that a large number of traffic problems have arisen. The problem of needed readjustments of one kind or another to fit changed conditions in the problem of traffic in the average town.

[1] Cf. also statements of Municipal Markets Commission quoted in *City Planning,* by C. M. Robinson, p. 43, to the effect that it "costs as much to deliver a hundred pounds of foodstuffs in Chicago, after the supplies have reached the city, as it does to carry them the hundred miles across the lake. In Milwaukee it is said to cost more to distribute coal within the city than to bring it from Pennsylvania."

WHERE A DOUBLE TRACK OVERBURDENS A NARROW STREET

On this street tire trouble held up seven cars for fifteen minutes. Owners of property stated that they had difficulty in getting coal companies to deliver coal, owing to the tie-up to traffic which the delivery necessitated.

A STREET OF NEEDLESS WIDTH IN A RESIDENCE SECTION

Wasteful of valuable space, and expensive to repair and to maintain. Houses crowd close to the street, because lots must be made correspondingly shallow.

The Street and Traffic.—As the town is made up of varied interests and parts, so we find traffic to be of different kinds both as regards method of locomotion and objective.

There is *wheel* and there is *foot traffic*. There is *local traffic* moving from point to point with frequent pauses, and *through traffic* passing through the center to points beyond. The wheel traffic is made up of private and public vehicles for service and for pleasure. Each kind of traffic mentioned occupies a definite amount of space for travel, each moves at its own rate of speed, but all, with the exception of foot traffic on the sidewalk, flows along in the same channel.

An ideally arranged street system, it is easy to infer, would be one which offers to each class of traffic a channel of its own, where its movement would not interfere with traffic of other kinds, nor itself be interrupted. But obviously such an arrangement would be difficult of complete fulfillment. By careful arrangement and proper regulation, however, much assistance may be given.

Generally speaking, no serious traffic problems will arise from the use of thoroughfares by different kinds of traffic so long as it is enabled to flow with even reasonable ease. When, however, the volume becomes so great that a free flow of the current is no longer possible, a remedy must be applied.

The Causes of Traffic Congestion.—First and last, traffic congestion means an overcrowding in the traffic channel. Where congestion occurs it is due to one of two main causes, either to the street's being obliged to meet demands for which it was not originally intended, or to actual obstructions in the traffic channel. In either case the reason is that of improper planning.

Old Channels for New Requirements.—Business like steam, demands room for expansion. Concentration to a reasonable extent is desirable in the business district, but a constant outward pressure has to be provided for. It frequently happens that a street just off of a main thoroughfare develops into a thriving business street, when its width is not suited to carry the traffic which such a development brings to it. And so it comes about that, though main thoroughfares are usually made of adequate width, traffic conditions in minor streets which have been later brought into use as business streets, are often serious.

Physical Obstructions in the Channel.—One of the serious deterrants to traffic in a town or city is that class of physical obstructions which consist of angles in the street line, a narrowing up of the street, sudden jogs and offset street intersections.[2]

Following the common method of adding to the

[2] See Diagram IV, figs. 2, 5, 6, 7, 8.

town plan piecemeal, property lines occasionally offer problems as to the direct continuity of streets. It is seldom that such obstructions could not have been overcome, if care had been taken for adjustment at the proper time,[3] but the line of least resistance has too often offered to the street platter a tempting way out of the problem, and obstructions were allowed to stand. Could the serious results which are to-day present have been foreseen on this street or that, most of the mistakes in the laying out of traffic routes would have been avoided.

Street Requirements for Proper Traffic Flow.—For the facility of traffic flow along the city street three main requirements appear evident. (1) The requirement of a proper degree of directness; (2) the requirement of proper grade, and (3) the requirement of proper width. Let us consider the application of each of these to streets, making use of the term "street" to mean not the roadway alone, but all the land lying between property lines on opposite sides, including planting strip and sidewalk.

The Requirement of Directness.—To go from point to point in the town the ideal route from the standpoint of time and ease would obviously be the straight line. The turning of corners means not only possible contact with other vehicles but a loss

[3] Cf. above p. 7, par. 1.

of time in making the journey. The effect of the obstructions offered to traffic by street angles, jogs, and offset street intersections is easily appreciated. Even supposing that vehicles using the roadway keep to their proper place, possible collision points are many.[4]

Though directness is of utmost importance in the business section and on arterial thoroughfares, where the volume of travel is great or where time between points is a vital consideration, it is of less importance in the minor streets of residence districts. Here it is often purposely to be avoided by making minor streets short and curving them where a logical reason for a curve is found. The reason being that through travel is not invited on such streets. The quiet homelike quality of the section being here a more important consideration.

The Requirement of Proper Grade.—Steep grades do not at the present day form such an obstacle to traffic as formerly when the horse was the standard motive power. In the day of the horse-drawn vehicle 8% (that is the rise of eight feet in going a horizontal distance of one hundred feet) was about the maximum slope that might be allowed for easy hauling. To-day the auto readily climbs a road of from 12 to 14%. However, there is a certain limit close about this figure

[4] See Diagram IV illustrating various Traffic Channels and Traffic Flow, p. 47.

DIAGRAM IV.

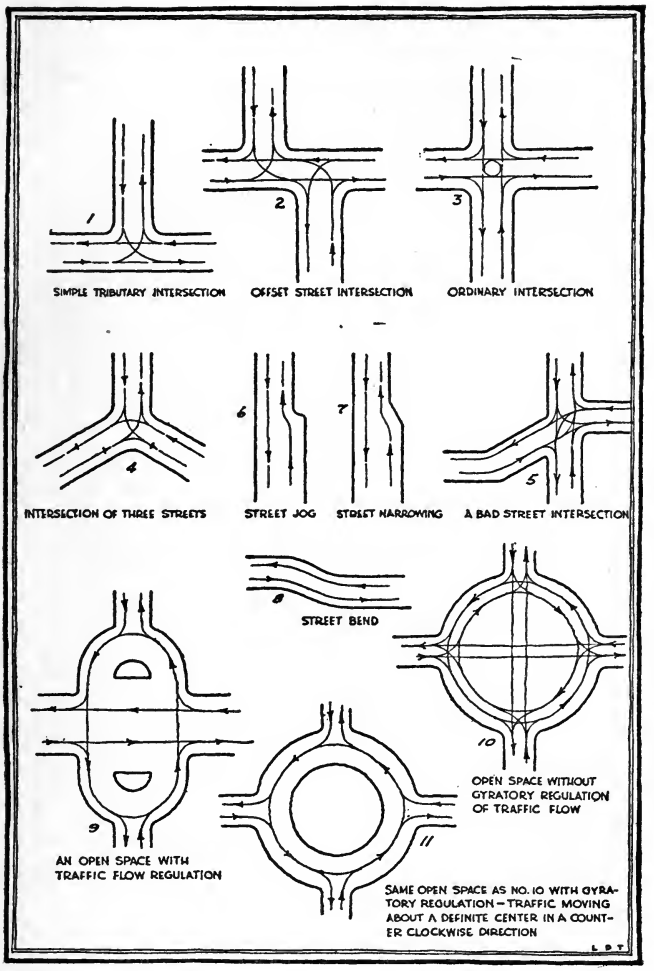


ILLUSTRATION OF SEVERAL TYPES OF TRAFFIC CHANNELS SHOWING TRAFFIC FLOW.

just named, beyond which streets should not rise in steepness. San Francisco, whose streets in certain parts of the city were laid out with little regard to topography, has in some places slopes of 26% for some of its residence streets. The fact that grass is seen growing in the pavement of such streets, though they lie in thickly populated regions, and that vehicles stop on the street above to make deliveries, is evidence of the restriction which grade may put upon traffic movement.

The Requirement of Proper Width.—The width given to streets bears a definite relation to their importance on the town plan. Main business streets and arterial thoroughfares should have additional width to provide for the larger amount of traffic which is to use them.

Under the system which has existed in most of the towns and cities of our country, the width of streets has been largely *standardized,* that is, the same width has been laid down for all streets in town regardless of special use. The main business street is made no wider than the street of homes; on the other hand, the street in the quiet residence section is given a width adequate to the busiest thoroughfare.

While there are some streets in nearly all communities with roadways which are of insufficient width, the greater number are given too great

width.[5] Over-wide streets mean an economic loss[6] to the city of otherwise usable space. Too wide pavements entail unnecessary cost of paving and upkeep, not to mention the discomfort resulting from heat reflection, and time taken in crossing.

Remembering that streets are to be considered as organs serving a definite purpose in the town's life, we shall at once recognize that street widths may and should vary according to the purpose required of them. Where it is known that a wide street will never be needed in a particular section, a limited width should be given to both street and pavement.[7] On the other hand, it is necessary to make streets in other sections wide at the start or to plan them in such a way that they can be widened when the time comes.

The degree of ability to meet with reasonable ease possible later requirements of greater width is called the street's *convertibility*. A way of rendering a street readily convertible into a street with wider roadway would be to provide generous parking strips between curb and sidewalk. On such a street the pavement could be widened at any time with slight readjustment.

Planning Street Widths.—To be able to tell just

[5] Cf. *City Planning*, by N. P. Lewis, pp. 226-7.

[6] Above note 2, p. 31.

[7] It is possible to insure a certain amount of stability to property values in residence sections by limiting the width of streets.

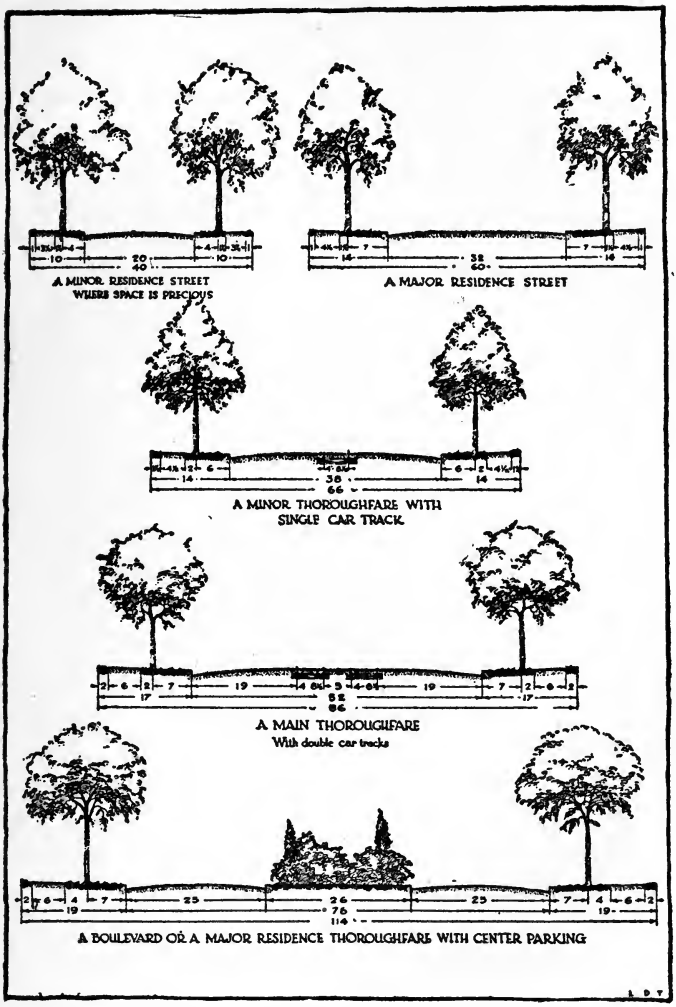
how wide to make streets is not a complicated matter, though it at first appears so; one needs to have in mind standard dimensions for various lines of traffic, and then make provision for the proper number of lines of such traffic on the street.

We may estimate the space required by each line of pedestrians on the sidewalk as about two feet. On a residential street then a four-foot walk might suffice, though five would be most comfortable for ordinary use, and six better for a popular street. In the business district sidewalks may vary from eight to twenty feet, the parking, between sidewalk and curb, here being eliminated. Ordinary lines of vehicle traffic occupy about eight feet, allowing for passing. A quiet residence street might thus be made with a twenty-four-foot roadway. For two lines of traffic in each direction we should allow thirty-two, although thirty would probably do. A single street-car line requires about nine feet for proper clearance on each side; a double track would claim about nineteen feet of the street's width.

Diagram V will be helpful in illustrating the subject of practical street widths and methods of subdividing the street cross section for traffic under varying conditions.[8]

[8] Cf. Also pp. 226-27, *The Planning of the Modern City*, by N. P. Lewis.

DIAGRAM V.



CROSS SECTIONS OF A FEW IMPORTANT TYPES OF STREETS.

Methods of Meeting Traffic Problems in the City.—Having considered in a general way what the traffic problems are which the city has to consider, it remains to be considered how these problems are met. The methods of meeting traffic problems are mainly two, viz.: (1) By making changes in the physical condition of the channel, and (2) by legal regulation as to traffic flow.

Improvement Through Physical Change.—The fact that protruding buildings, street jogs, offset corners, and narrow roadways and sidewalks impede quick transit, points to the fact that by doing away with the jog, and offset street intersections, and by widening the roadway and the sidewalk an effective beginning will be made in improving conditions. Radical changes such as the straightening of streets and the setting back of building lines are extremely expensive in built-up portions, and involve much legal dispute and tedious procedure. Each case calling for reconstruction is to be decided upon its own merits, the cost as in all improvement projects being a relative matter to be weighed against the benefit to be gained.

On wide streets small raised areas called "Islands of Safety" are sometimes placed in the center of the traffic channel. Primarily of use as a midstream refuge from fast traffic, they serve also to keep vehicles in their place to right and left.

Improvement Through Traffic Regulation.—The second way of aiding traffic flow in cities is

that of instituting legal regulations by the aid of which traffic is enabled to flow in considerable amount along channels which otherwise would be so choked as to be all but useless.

The simplest and most universal of all traffic rules is that of keeping to the right in passing. At street intersections a very general regulation is that traffic in turning into left-hand channels should turn sharply about a real or imaginary point at the center—avoiding cutting across the corner.[9] In crowded parts of a large city it often becomes necessary to allow travel only at intervals across intersecting streets, a traffic policeman with whistle or semiphore directing the alternating flow. What may seem at first a slowing up of traffic makes for speed in the end. Many street crossings in our large cities would be next to impassable without such regulation. About twenty to forty seconds is said to be the usual time taken for the flow in one cross direction before that along the cross channel is begun.

At focal points in the city where monumental or wide open spaces occur, a wise rule is that traffic entering the open space shall go round to the right in a counter-clockwise direction about the center until it finds its exit.[10] Thus the likelihood of confusion is obviated.

[9] See Diagram IV, p. 47, figs. 1, 2, 3, 4, and 5.
[10] See Diagram IV, p. 47, figs. 9, 10, and 11.

The problem of what to do with the standing auto is becoming of increasing importance. In crowded sections of some cities vehicles are not allowed to stand at the curb longer than to take in and deliver passengers; in others, they may stand, but not unattended. When streets are very wide autos are sometimes parked in the middle of the street. The blocking of traffic lines by standing autos in one way or another is evident in most cities. A common regulation is that they shall park only at an angle of forty-five degrees to the curb line; another, that they may not park within a distance of not less than twenty or thirty feet from the corner.

Crosstown and radial thoroughfares leading through already busy sections often result in traffic congestion at the point of intersection. Regulations passed in St. Louis, Oakland and in some other cities require through traffic during certain hours of the day to pass about several blocks to avoid a congested business center. Many cities, notably Pittsburgh, have made certain streets one-way streets at all times. The fault of the original planning, which makes such legislation necessary, is evident to all.

Traffic Regulation for Comfort and Safety.— There are many traffic regulations which each town or city may enact for the protecting of its citizens. Such regulations are those which have to do with

restricting speed, dimming extraordinarily brilliant lights, prohibiting autos from passing by waiting street cars as they stop to receive or discharge passengers, and the like.

Wise regulations, too, are those that prohibit bicycles from the use of sidewalks at all times, and those which prohibit ordinary hauling on strictly residential streets except for the direct delivery of household and building supplies.

Summary.—A proper traffic flow is vital to a town's business efficiency. Modern transportation renders the problem of street transportation greater to-day that ever before. The causes of traffic congestion are (1) the placing of unforeseen demands upon the traffic channel and (2) the existence of actual physical obstructions in it. In either case lack of proper planning is the reason therefor.

Three main traffic requirements are to be noted in regard to streets: (1) The requirement of proper directness; (2) the requirement of proper grade, and (3) the requirement of proper width. There are two methods of meeting traffic problems which arise: (1) By making changes in the physical condition of the channel and (2) by legal regulations of traffic flow. One or both of these may be employed according to circumstances.

CHAPTER V

THE RAILROAD AND THE TOWN

It is characteristic of our everyday life that once a thing is found to be convenient it becomes indispensable to the next generation. The steam railroad is one of many modern conveniences which have thus taken a prominent place in modern life. It is not too much to say that it is one of the most active agencies in the progress of civilization. Upon the growth of adequate facilities for railroad transportation depends in a very large degree the growth of towns and cities.

If it is true that towns are dependent upon railroads, it is equally true that railroads cannot prosper without towns to support them. In other words, a very real and definite interdependence exists between the two. It is well to recognize this thought at the start, for only by so doing may a fair and just consideration of the subject be undertaken.

The Justifying Value of the Railroad.—Let us for the moment imagine ourselves living in an absolutely railroadless town. Certain indisputable

advantages there would be in the existence described. We should be blessed with less noise; whistling trains, ringing bells, and the rattle of rails would be eliminated. There would be far less smoke and dirt to distress us. We could go about town in far greater safety, hazardous railroad crossings being no longer existent. In point of appearance, too, our towns would show improvement; no switch yards, dreary tracks, and ugly roundhouses, would lower the standard of the town's appearance.

But in the wake of these advantages there would be disadvantages which we should have to recognize. Easy and quick communication with the outside world would be difficult. Mail and articles sent by post which take but one or two days to reach us from distant points by railroad would require many days to arrive at their destination. And we can imagine for ourselves more trying conditions.

Our inevitable conclusion under such circumstances would be that in spite of certain unpleasant things that exist with the railroad, its existence is more than justified because of the service it renders. The proper attitude, therefore, for the citizen to assume with regard to it, is acceptance of its presence coupled with a resolve to work for improvement in conditions which seem not to be ideal.

Past and Present Attitude.—A common attitude

of mind which has long been held regarding the railroad in the town is that of suspicion of everything bearing the name of Railroad Company. This attitude is the outgrowth of a status, which it must be admitted existed with some real provocation in former time. Concessions of land along their route were granted railroads [1] in their early history by the government to induce them to enter new regions, concessions so sweeping as easily to lead railroad companies to assume an attitude of arrogance toward the public in the territory through which they passed. In former days railroads were little regulated by law; of late years, however, something of the other extreme exists. Regulations and laws differing in various states have hampered full efficiency in railroad development from the railroad's point of view. There are instances which might be cited to show that in late years the railroad has done its part to meet the public half way.[2] To-day the railroad is to be regarded in a quasi public rôle[3] with certain duties

[1] Railroads were in some cases granted title to alternate sections of land fifty miles each side of the right of way.

[2] It is significant of the new attitude of the railroads that there has lately been established what has been called a Railway Publicity Bureau in Illinois, made up of thirty-seven prominent railroad companies. The aim of the organization is claimed to be to discover how a greater degree of coöperation between communities and the railroads can be brought about.

[3] *The Relations of Railways to City Development.* Papers Am. Inst. of Architects. Glen Brown, Editor.

owing to the public, an idea largely accepted by the railroads themselves.

It is to the interest of both railroad and town that their relations be friendly. Both have rights which the other should respect. The benefits of a friendly relationship will prove to be far greater than an antagonistic bearing on either side.

The Railroad and the Town Plan.—The railroad as seen on the town map often shows evidence of wrong location, cutting through the town's very center or usurping land especially valuable for town development. This is due, quite often, not to the railroad's intention to cut the town plan in two, but rather to subsequent town development on each side of the railroad's right of way. Again, a railroad company has sometimes been compelled to accept a right of way into town against its choice, the land later having proved to be of great economic value as in the case of the Illinois Central R.R. in Chicago, in its route along the lake shore.

A noteworthy difference in railroad location with respect to the town plan is noticeable in American and European cities. In most American towns the railroad runs directly through the town, while abroad it is more often located toward the edge; the reason for this being that in the average case in our country the railroad existed before the town was established, or at least before it attained middle age, while abroad, as a rule, the town or city had ex-

isted long before the railroad came into being. The difference in point of such unsightly features as shipping yards and steel-tracked gulches, is obvious.

It is common to find the railroad occupying land along the waterfront of the town. At least four reasons account for this: (1) The grades are uniform at this point; (2) a line along the water is thought by early townsmen to be out of the way; (3) railroads serve industries which typically occupy land near water, and (4) the easy filling in of waste land lying near rivers is a further inducement to railroads to take over such lands and create yards by filling.

The Railroad as the Entrance into Town.—The railroad forms the main point of entrance into our cities from the outside world. In a way the railroad is the portal to the town—the route from which the traveler gains his first impression of the community.

Old world cities appreciate this fact more than we, and more attention is paid by them to making the first impression a favorable one. Rights of way are often flower-bordered. Remembering that medieval towns were approached by a highway entrance through massive gates in the city walls, some foreign towns of modern day have given to the railroad entrance a like significance. Special opportunity comes where a bridge crosses a river, entering the town from the opposite bank. The

railroad bridge at Mainz, for example, having the form of a portcullis, is a good example of this treatment.

Clearly the town which can create an impression of attractive appearance in the traveler's mind has passed out the best kind of advertising card. No town or city would purposely display a sign "We are a shiftless town," and yet many a town in our country does this in spirit by ignoring appearances at its railway entrance, displaying wretched hovels, slovenly backyards, and unsightly signboards along the right of way or in full view of waiting trains.

The Railroad Station—Location and Appearance.—The location and the appearance of the railway station are important factors in making or destroying the desirable impression just mentioned. On leaving an ideally located station the traveler finds himself upon a threshold, where he obtains a panoramic view of the most interesting section of the city. In Genoa, Italy, several years ago the citizens decided upon the improvement of the land immediately adjoining the railroad station. Here they "placed appropriately the statue of Columbus and in surrounding this with turf and flowers they did so in order as the Genovese authorities expressly declared, *'that the first impression of strangers coming to our city might be favorable.'*" [4]

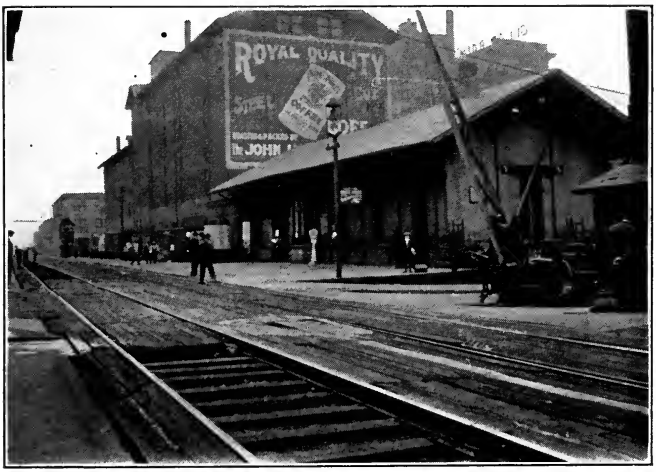
[4] Ref. quoted, *Modern Civic Art*, by C. M. Robinson, p. 68.

Being the point of entrance and exit, the railroad station should be located so as to be easily accessible from various parts of town. Streets may well focus at this point. The station's location should be thought of as an important part of every town planning scheme. It may be located in relation to other public buildings, and may even form a part of the civic center itself, especially where one leading railroad line serves the town.

Until lately the term "cattle shed" was applied to the main passenger station in the city having the second greatest mileage of tracks of any city of the union. The appearance of the structure named was neither comfortable, nor in any way suggestive of it. As to the effort at architectural design of railroad stations, we find good examples in a number of our large cities, but it must be said that in the average town, too little attention has been given to making them more than what is implied in the reference above.

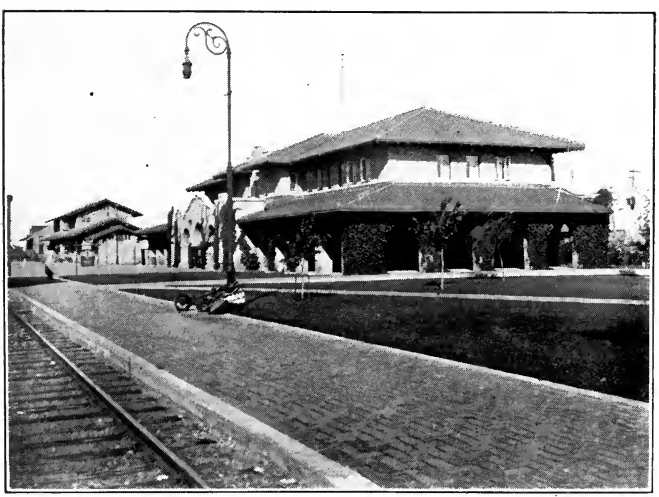
Considering the comparatively small difference in cost of well designed over poorly designed structures, the number of poor examples is a surprise. A station which will perfectly accommodate people in large numbers, and can take its place alongside of the best modern architecture of the town in point of appearance is the thing desired.

Union Stations.—When several railroads of a city unite in the building of a union station, the



AN INADEQUATE AND UGLY STATION

This building survives in a city of well over one hundred thousand inhabitants. A poor first impression for the traveler.



A RAILROAD STATION OF PLEASING APPEARANCE

One of many artistic structures along the route of the Santa Fe R. R., Clovis, N. M.

location and form of this building become of special moment to the community, offering an opportunity to make something proportionately imposing. The advantage and disadvantage of a union station has been much discussed by town planners. The street system at the point of the station's location is put to a severe test in that the station's establishment concentrates a good deal of traffic at this point—traffic which before was distributed to several points. The Union Station, however, offers undeniable advantages to the community in that, (1) it is economical in space needed for rights of way; (2) it is economical in space devoted to the station itself, (3) by united effort a much more creditable station building is assured and (4) it is convenient for the traveler.

Railroad Station Grounds.—Parallel with the idea of improvement in the actual building where the traveler enters and finds temporary shelter, there comes the thought of improvement which may be made in the surroundings of the station building. Effort, sporadic and wasteful, has often been made to "beautify" station grounds, with a result often far from pleasing. Neatness is desirable, but something more than neatness is needed. Geraniums and whitewashed stones, cast-iron Indians, and concrete dogs have possibly a faint element of interest or amusement to the passerby, but how much more desirable the effect of quiet orderliness

produced by stretches of lawn, green trees and well arranged shrubbery borders. The freshness of such a scene would offer to the cinder-dimmed eye of the tired traveler an impression not soon forgotten. Sometimes the railroad station is fortunate enough to face a small town park, which then offers to travelers a welcome chance to spend time in the open between trains.[5]

Encouraging evidence of the consistent improvement in station grounds carried out by railroads with the coöperation of the towns along the route may be cited. The story of improvement accomplished by the Boston and Albany Railroads in its station grounds is well told in the following paragraph.[6]

"It was a little over twenty years ago that the baggage master of the Newtonville station, Mr. E. A. Richardson, having in his make-up both the gardening instinct and love of the beautiful, thought it not inconsistent with his duties as custodian of the station to beautify the adjacent grounds, which in common with most railroad property at that time were entirely barren and uninviting from every point of view. The citizens of Newtonville encouraged this effort on the part of Mr. Richardson

[5] Ref. F. L. McVey, *The Making of a Town,* chap. 7, The Entrance to the Town.

[6] *A Study in Railroad Gardening,* by Frank S. Arnold. Article in *Suburban Life,* printed in pamphlet form by Gen. Passenger Dept., B. & A. R.R., Boston, Mass.

by supplying him with the necessary material for the furtherance of his work, and it was not long before the station grounds were so conspicuously improved as to be a matter of universal comment.

"As might be expected, this form of improvement was brought to the attention of Professor Sargent of the Arnold Arboretum, one of the Directors of the Albany Board, with the result that a department having in charge the beautifying of suburban grounds was instituted and Mr. Richardson placed at the head of it. From this small beginning has resulted a system of gardening now embracing over sixty stations along the line of the Boston and Albany."

A good deal that is worth while in improving station grounds has been done by the railroad company's offering prizes for the best kept stations along its route. Frequently towns and railroads can do much by coöperation of effort at beautification.

Other Specific Problems.—Frequently the railroad as it cuts or appears to cut through the town plan, creates serious problems for traffic. Here and there streets cross the tracks on a level creating grade crossings—a menace in many a community.[1]

[1] It is stated that one thousand lives are sacrificed annually in the United States at grade crossings, the use of the automobile increasing the proportions of the problem. Cf. *The Removal of Grade Crossing,* by H. Bartholomew, Eng. City Plan Commission, St. Louis, Mo., *Wildwood Magazine,* Dec., 1916.

Elsewhere streets are brought to an abrupt end by the railroad. Since streets are sometimes laid out crossing the railroad long after the railroad has been built, the railroad is not always to blame for the grade crossings nor for the dead-end street.

When it comes to making readjustments for the benefit of the city it is sometimes necessary for the community to assume a part of the expense of such improvement, the division of expense to be borne by town and railroad respectively, being regulated by the State Board of Public Service according to the conditions of each problem. A large number of states prohibit by law the establishment by railroads of grade crossings along new routes.

The expense of eliminating all grade crossings at once in a community is usually prohibitive. Most towns and cities honestly aim at their abolishment in time. When improvement cannot at once be accomplished it is the town's duty to cease agitation merely for agitation's sake, and to see to it that crossings are made as safe as possible by the installing of gates and automatic signals until the time when entire correction can be brought about.

The change from having grade crossings is accomplished in one of several ways; by elevating the tracks, or by lowering them so that they lie in open cuts, or by partially elevating the tracks and lowering the roadway making a tunnel under the track for the street at the point where its line crosses the

railroad. The tunnel of gentle grade under the slightly raised track would seem to be the best solution in the average case. Care must be taken that such tunnels are well drained, and well lighted, and that they be kept clean.

The Importance of Coöperation.—In all attempts at improvement coöperation between the citizen body and the railroad will accomplish most. Without it little can be expected from either side. Requests to the railroad company for a new station or for improvement along the right of way should be accompanied by an expression of willingness on the part of the citizens to do their share if need be. Let it be remembered, for example, that unsightly views just over the boundary will contradict any effort the railroad may be endeavoring to make in the appearance of its property.

Summary.—The steam railroad has taken a prominent place in the life of modern communities. Though its presence creates certain problems, its existence is justified. There exists between the railroad and the town an interdependence which should be recognized.

The railroad forms an important entrance to the town. The impression of the town's appearance gained by the passer-through, or the visitor arriving by train, serves as an advertisement for good or ill. It is of importance, therefore, to the town that this impression be a favorable one. Attention

given to improving the appearance of property along the right of way, the railroad station, and the grounds about it, will go far toward creating the desired favorable impression.

The question of the railroad station's location with reference to the town plan, and the solution of such problems as dead-end streets and grade crossings are matters of importance in their turn. Coöperation is to be remembered as the most effective means of bringing about improvement in the conditions that exist between the town and the railroad.

CHAPTER VI

THE WATER FRONT

In most towns and cities there will be found the presence of some water body. Sometimes it is the shore of lake, ocean, broad river abruptly stopping the community's growth in one direction, sometimes it is a river of moderate size on both banks of which the city spreads, and sometimes only a small stream winding its way through the town, a minor incident in the community's life.

The line of contact with this water body is usually a place of intensive use, and of importance in the town's career. In most cases the water front is capable of much improvement, for reasons and in ways which we shall discover.

The Problem of the Water Front.—The term "water front" suggests at first an elaborate shore line of lake or ocean, but the term is not to be understood as limited to this meaning. The small stream of the moderate sized community may have a waterfront which presents a problem as real in its way as that of the larger city.

The opportunity of securing a double benefit

from the use and appearance of the water front seems to have escaped the minds of most of our towns and cities. In the pursuit of wealth at the expense of other qualities, our towns have plundered their own resources. Beauty at the water front hardly has been thought of, but worse than this, seldom is even the utmost use secured. Industries of all kinds, railroads and shipping facilities where the water body is of sufficient size, elbow one another for space upon this coveted area, each mindful only of its own gain and not of the public interest; with the usual result that, as the town reaches even middle age, the heritage of its water front, which it then begins to appreciate, is lost to it forever.

When this stage has been reached, then as if disgusted with conditions which could have been avoided by proper forethought, our American town turns its back upon its water front, giving all attention to improvement in growth that takes place in the opposite direction. If we deliberately look for the meanest parts of the average American town, we shall in all probability find them along the old water front of the town, which in many a community has become at once "the despair of the engineer and the sorrow of the real estate dealer."

Use and Beauty at the Water Front.—The picture just described is not a pleasant one. Yet such truths must be faced if we would work for improve-

ment. It is to be kept in mind as one of the foremost principles of town improvement that beauty in the city is never to be advocated at the expense of usefulness.

In making mention, therefore, of the steps that may be taken for improvement of the water front of our town, let us not imagine that it is beauty alone which we have in mind. We are dealing with a part of the city which serves an important purpose in the city's life. We would not interfere with usefulness to gain beauty, but in striving for usefulness we shall try to get what beauty we can.

If a city possesses a water front which is of use for shipping purposes, it would obviously be wrong to urge that shipping be discontinued in order that the area might be used as a park. On the other hand, a park development along the water front may better serve the community than the usurpation of the area by private business.

Let us draw what lessons we can from towns and cities possessing the kinds of water bodies which were mentioned, endeavoring to see what principles may be applied in the handling of water-front problems.

The Town with the Small Stream.—A large number of towns are situated upon the banks of small streams. Evident as a thing of some beauty when the town was young, often elements of beauty become lost as the town grows. Used at first as

a source of water supply for industries along its bank, the shore line has at length been built up and encroached upon until the stream has been hidden from sight, or, where visible, is dark and heavy with the waste of the mill. Perhaps a part of the stream's edge has been used as a dumping ground, narrowing the bed until in time of freshet the banks overflow upon the neighboring region—a danger to life and property. Or again, following the easiest method at the moment, the stream has been used as a place into which to lead sewage, with the result that the stream becomes a carrier of disease to the town on its bank—a menace to health and an offense to sight.

The first step necessary to improve such a condition as this would be to stop all sewage emptying into it. The next would be to compel industries to filter outflowing water from their mills and thus prevent pollution and discoloration by manufacturing waste. When such measures seem next to impossible of accomplishment, the stream should be covered over completely and made to flow in a conduit of sufficient size to allow for maximum flow in times of high water.

Private effort will count for much in the improvement of the water front of a small stream. By planting stream banks and clearing away rubbish cast upon them, the small stream may be made an ornament to the town.

In the open parts of town, land bordering the stream might be purchased and converted into a small public park. When the stream spoken of runs by the rear of private property, as is sometimes the case, the adjacent property owners might be induced to dedicate it to the public as a small park. An attractive path might follow along grass-covered stream banks with trees and shrubbery planted in attractive groups.

The Town with a River.—The condition of the banks of a river within the town are of special importance in that their effect for good or ill is double; from an opposite shore banks are seen which in the single shore line on lake or ocean would be literally *overlooked.*

On the river front of the average city the encroachment of industries takes place just as on small stream banks, but in a greater degree. Railroads are quick to claim room along the river,[1] and behind these crowd the warehouses and manufacturing establishments which they serve. In Rochester, N. Y., the river flows through a retail district, where stores have crowded out on to the bridge, shutting the water from sight; a passer over the river, as on old London Bridge, sees shop fronts on either hand, but nothing of the water itself. Where the river is at the rear of residence property the river bank is sometimes used as a dumping

[1] Refer above, p. 60, par. 2.

place for rubbish, or for a convenient outlet for sewage as in the case of the small stream.

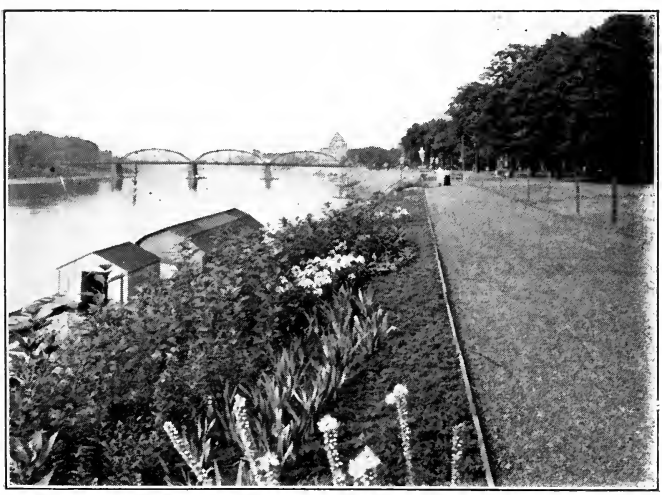
Fortunately there are numerous examples to show us what improvement of the river front can accomplish. Paris is perhaps the best example of how a river can be made to contribute to the attractiveness of a city. Numerous quays of well constructed masonry have been built at which shipping can be carried on. Well proportioned bridges span the Seine. In Paris the bridge becomes one of the chief modes of expression of the love of the city beautiful. Its bridges are one of the glories of the city.[2]

The Thames Embankment in London is an example of the dignity which a properly treated river front may acquire. There a wall of masonry with a wide drive surmounting it forms one of the most attractive parts of London. Frankfort and Lyons show us how a river front may be used for the double purpose of business and pleasure; the treelined boulevard is seen above, while shipping is carried on below; manufactures which lie on the bank take freely of the water, but are not permitted ungratefully to cast back defilement into the stream.

Many of our American cities, though they have asked what they might do, have as yet done nothing in the way of improvement. The chief lesson for

[2] Cf. below, Chap. XII, p. 149, par. 2.

AN UNIMPROVED RIVERFRONT. WILKES-BARRE, PA.
Such a waterfront is neither useful nor sightly.



THE SAME RIVERFRONT AFTER IMPROVEMENT
A forceful example for other towns and cities.

our towns and cities in this regard would be that the reservation of the water front for the city's enjoyment had best be made early, for in later life wresting this bit from the hands of private interests will be a task to discourage even stout hearts.

The part of the river front not occupied by shipping, offers special opportunity for transformation into park land.[3]

The Town on Lake or Ocean.—For the town or city on lake or ocean, the harbor is the natural point of entrance into the town; yet often this fact is wholly lost sight of. The traveler arriving at port in many of our great American cities is received, as it were, at the back door. This feeling that the city is not doing its part in meeting the incomer half-way, has led a few of our large cities[4] to consider plans for creating a worthy portal leading the incomer by an appropriate route from the water's edge to the business heart of the city. The fact that the plans have not yet been carried out cannot bar the sponsors for meriting a great deal of praise for the conception of such schemes. The Charles River Embankment in Boston, offers a good example of how an extensive water body lying well within a city may be im-

[3] Cf. below, p. 87, par. 4.

[4] Notably New York and San Francisco. Architectural competitions.

proved. The shore line of Buenos Aires is exceptional in its handsome treatment. The Chicago plan for the reclamation of its water front has merit enough to justify its imitation where the improvement of a portion of lake shore is under consideration. Cleveland and Buffalo, situated on the inland lakes, are cities which have let thought of the water front go unheeded only to awaken at length to find much of their birthright gone. In the treatment of water fronts there should be a proper regard paid to the preservation of whatever has picturesqueness, and historic interest in both structures and land forms, provided that usefulness is not interfered with.

Summary.—Most towns and cities exhibit the presence of some water body either the shore of a small stream, river, lake or ocean. The opportunity of getting the utmost from the water front has been lost to most communities since they have usually been unmindful of its value to the community as a whole until private interests have been allowed to lay claim to it. The average water front has unfortunately become a place of little public use, and a place of mean appearance.

The problems to be met in the case of water fronts differ, but they are alike in that the question of use and appearance both play an important part in the solution.

CHAPTER VII

PARKS AND OTHER PUBLIC OPEN SPACES

In the town's public open spaces we have to deal with what are among the earliest and the latest conscious products of civic art; earliest in that open spaces for public use appear in primitive communities; and latest in that the movement for a systematic creation of parks in cities has come into its own almost within the present generation. With the exception of some of the largest cities, most of the parks of the country are an acquisition of the last twenty years. It is cause for encouragement to American town improvers that in the matter of park development our country leads the world.

In the subject mentioned, we are concerned with an important phase of town improvement rendered so first by reason of the intimate connection of open spaces to the town plan, and second by the vital relation of parks to daily life and to the health of the citizens.

Various Kinds of Public Open Spaces.—At the outset it is evident that the open spaces of public

character in the town serve various purposes. A listed arrangement according to use and character would yield the following:[1]

1. Public or Monumental Squares—Plazas.
2. Minor Open Spaces—"Places" and In-town Parks.
3. Natural, Country, or Landscape Parks.

These will be considered in turn, the endeavor being to discover the origin of each type, its typical location on the town plan, its function, and some of the principles involved in its layout.

The Public or Monumental Square.—Through history there has persisted the custom of marking the center of the city, or the junction of its most important streets by an open area. Such an open space served the purpose of providing for public gatherings and the needs of daily life.[2]

Modern towns and cities have felt intuitively the value of the public square as lending dignity to the main focal point of the community.

As towns differ in personality so these central squares differ in various places, from the quiet "green" or "common" of the New England town, to the more pretentious monumental central square and plaza of other communities. In the average town the central square consists of an open space of

[1] The Public Playground is here omitted from the group of Public Open Spaces. A consideration of it will be found in the next chapter.

[2] Vid. par. 3, p. 154, *The Civic Center.*

limited area with geometric curbs and perhaps a monument at the center. The buildings that face upon the square as a rule play too little part in the effect of the whole, because usually unworthy.

That the average public square falls short of what it might be is not to be denied. There is in this fact not cause for despair, but rather an incentive to the creation of better things. When one considers the prominence of the central open space of most towns, it is surprising to see so general a disregard for appearances.

The monumental square or plaza is best arranged as an open space to which the features within contribute to a sense of breadth and civic dignity. The arrangement of it is usually properly in formal or geometric style. The proximity of geometrically laid out curbs and sidewalks demand a corresponding formality of treatment. Whatever monumental features are here found should be of real artistic worth, and have a setting in keeping with their prominence in the public eye. Shrubbery should be low and within beds that hold a true place in the formal plan. Here is one place where flower and carpet bedding are appropriate.

It is rare that a bandstand can be made to appear a dignified feature in a square of the kind we are considering. Provision for drinking basins and fountains, flagpole, seats and comfort stations are features that may properly call for placement.

In the planning of this and other types of open spaces within the town, the arrangement should be such as to favor, and never to interfere with the flow of foot and wheel traffic. Any arrangement which conflicts therewith should be avoided. Design and type of ornamentation should keep pace with modern requirements. Ways which do not serve present day needs should be at once revised.

Caution should be exercised in giving too free use of the central square to street car lines. It is proper that street cars should pass through the central square, but not to use it as a terminus to an extent which conflicts with its best use by the city as is not infrequently allowed.

Minor Open Spaces.—In nearly all towns and cities there are open spaces which by reason of design, size, location and purpose lie neither in the division of monumental squares nor in that of natural parks. They result sometimes from a deliberate planning, and sometimes seemingly by accident in the planning of streets.

This group of minor open spaces is of special interest for several reasons. They are of such frequent occurrence as to be almost omnipresent in a journey about the city; they are distinctly interesting in their variety of size, shape, and situation, they serve a variety of purposes and therefore offer infinite special problems in their arrangement.

The function of the minor open space is primarily

to offer civic embellishment; in certain cases it serves also to aid the movement of traffic. Unlike the natural park, by reason of its limited size, it cannot depend for its effect upon scenery except incidentally. At its very elbows crowds the architecture of the town. Its aim, therefore, should be to make itself a part of its surroundings, offering a sense of breadth, and, in the degree which seems appropriate, the sight of trees and turf.

The minor open space may be any of the following types:

1. A simple widening of the street within the block or residence "place" for the purpose of enhancing property.
2. It may be the city block residence park.
3. Or it may be the street remnant formed at the junction of traffic thoroughfares or residence streets.

The Simple Street Widening or *Residence Place.*—The first mentioned has become familiar to us through the examples of London's fenced-in residence "squares" which have been copied in some parts of our own older cities. Residences face upon the usual limited open space, which may be of a rectangular, round, or oval shape.

With the general removal of fences the type's development is seen in the residence "place," of which many interesting examples can be found in

some of our cities. In the center parking strip between the roadways of such "places" grass, shrubs, and trees are usually planted, compensating in full measure for comparatively small front door yards. Such a pleasant treatment tends to stabilize the value of property bordering upon it. Though the reservation of such an open space demands a sacrifice of land for the center parking, the sacrifice has usually proved to be a good investment.

The City Block Park.—The usual town plan shows reservations of city blocks here and there marked off into park areas, for the purpose of providing close at hand places of relaxation and refreshment for those of the closely built residence districts. Incidentally these open spaces offer interest to the traveler about town. Very often the city later grows to the extent that these city blocks become downtown squares.

This type of park is a familiar one. Unlike the monumental square or plaza wheel traffic is confined to the reservation's outer edge, the central portion being given to walks, planting, and other features.

In the parks of this character civic art has an opportunity which it has often failed to seize. Not that labor has not been expended upon them, but that much which has been done has been badly done. The city block park is often anything but

lovely. Poor statuary, illogically planned paths, cast-iron ornaments and poorly arranged planting, occupy valuable space, crowding out all restfulness and dignity.

Because the location of such parks varies, and because conditions of traffic and surroundings place such demands upon the plan, no single rule can be laid down as to this kind of park's design. Nowhere is there greater need to let the virtue of frankness lead in the matter of arrangement. Generally the answer to the question of whether paths should be straight or curved should be suggested by the park's surroundings, formality being dictated by the presence of architectural structures at the edge, and informality by broad lawns and tree-dotted residence grounds near at hand. Entire naturalism is as out of place in the heart of towns as geometric lines are on broken or wooded ground.

The Minor Traffic Open Space or Street Remnant.—In the street system of many towns there are to be found some small left-over triangles here and there where streets converge. They may occur frequently and at any point on plan. To make small park areas of these is not to demand that land be appropriated, but simply that it be *reclaimed* for use. Not always are they of sufficiently large extent to be called parks.

It is one of the functions of street remnant parks to assist the distribution of traffic about them.

Found amid architectural surroundings near the heart of town, a monumental treatment of the space is often appropriate; in the outlying districts, a simple grassing and shrub planting may be best. Always in the treatment of them the utmost apparent breadth should be obtained. High planting should be avoided because of the danger to traffic.

The Landscape or Country Park.—By "Country Park" we mean the larger kind of reservation which is situated toward the edge of town where some bit of attractive natural scenery calls for preservation.

The aim and function of this larger kind of park is thus well put by F. L. Olmsted, Sr.,[3] the American pioneer park developer.

"We want ground to which people may easily go after their day's work is done, and where they may stroll for an hour, seeing, hearing, and feeling nothing of the bustle and jar of the streets, where they shall, in effect, find the city put far away from them. We want the greatest possible contrast with the streets and the shops and the rooms of the town which will be conversant with convenience and the preservation of good order and neatness. We want especially, the greatest possible contrast with the restraining and confining conditions of the town."

[3] Public Parks. F. L. Olmsted, p. 47. (Pamphlet published in Brookline, Mass., in 1902.)

Thus at once we see that the country park in its function appears as the complement of the city. Its purpose is to offer what the town cannot offer. The theory which would justify the expenditure of the considerable sums of money spent for parks is the theory that parks are a necessity, as necessary in their way to the welfare of the citizens as provision for water supply and sewage disposal.

In planning the country park's development a few principles should be kept in mind. Accommodation for numbers of people [4] demands the establishment of roads, paths, and places of shelter. The best planning suggests that these should all be made as inconspicuous as possible, being thought of not as ends in themselves, but as subordinate features to the park's general function. Nature unadorned is the quality which this type of park should appear to possess. This does not mean that man's hand should be withheld. The art which conceals itself in its product is the greatest art. In the landscape or country park paths and roads should accentuate broad open spaces by bounding rather than traversing them. The rear property lines of private residences should not be permitted

[4] "The new attitude toward parks," writes Gov. M. G. Brumbaugh, of Pennsylvania, to Pres. I. H. McFarland of the American Civic Assn., "is that they shall be service parks—not merely ornamental adornments for the exclusive use of the few who ride, but for the millions who walk."

to abut park property; where there is danger of this a drive should be placed between with a screening plantation at the park's edge.

Various kinds of recreation are to be provided for in the modern park. Besides provision for driving and picknicking, tennis, golf, baseball, and other games may well be encouraged, each within its proper area. But let it be remembered that a playground is one thing and a natural park another. Areas for playgrounds, if they demand conspicuous artificial construction, should be provided for apart from the naturalistic scenes of the open or wooded park. Many parks have had portions spoiled by the presence of tennis backstops and such features in the midst of natural scenery.

The per cent of city area which ideally should be devoted to park land is a difficult matter to estimate since communities show varied needs. Judging from the statement of good authorities, however, it would seem that from five to ten per cent of city area, or about one acre to every two hundred inhabitants, would be a proper amount. A recommendation would be that there should be an accessible park area within easy walking distance, or within about a quarter of a mile of every family in the city.

A General Consideration of the Choice of Park Site.—Of great importance in the success of the park is the question of the site. It has been said that

fully one-half of the park land of the country has been obtained by gift. Many excellent parks have been secured in this way, but it is a sound principle that the best results are likely to be obtained when the municipality is free to make a deliberate choice.

Accessibility by the public is all important. The location of parks should be such that the poor as well as rich can reach and enjoy them; and further, their proper distribution on the town plan should be studied with care.

A location to the side of town from which prevailing winds come is a good one for a country park, insuring to the town pure air from that quarter. This may prove a valuable protection in the case of industrial establishments.

A site with water is strongly to be recommended. Its presence is always refreshing. Land bordering rivers and streams may often be made into excellent park land; old water fronts and low land may be thus transformed. Whenever narrow strips of land on both sides of a stream are taken for a public reservation, the width of the stream lends an appearance of breadth to the reservation. High points in the city, too, afford a pleasurable prospect and make interesting sites for parks. In choosing one should remember that land useful for no other purpose will sometimes make the best park site.

Delay in choosing may mean loss of opportunity or necessitate increased expenditure later on. It frequently happens that land once purchasable at a normal figure for park purposes has finally risen to a figure which is prohibitive, when the community makes up its mind to purchase.

A Park System for Towns.—As soon as possible the parks of a community should be united into a park system. This does not necessarily mean that there is to be a chain of elaborate parks connected by wide boulevards, although it may be so! As applied to the average town the term *park system* would mean rather a unity of aim in the creation and development of its parks.

Though it is sometimes proper to develop to completion, one park in the town ahead of others to serve as an example of what the others may be, as a rule the needs of all parts of the town are to be considered, and the park in question is not to be developed at the expense of the rest. By uniting the parks of a community into a system their sphere of influence is greatly enlarged and they are then more appreciated by the citizens as a whole. If the parks can be connected by attractive parkways their total effect is increased so much the more.[5]

[5] The Metropolitan Park System of Boston may be cited as an example of a nearly ideal system. Here there are about fourteen different reservations located in Boston or adjacent towns within a radius of about fifteen miles from the State House. At least thirty-five miles of parkway connect them all

Park Acquisition and Management.—Park land may be sometimes acquired by gift.[6] At other times it must be bought outright and its development financed by the municipality. In European countries a large percentage of present park land was obtained as grants from nobility, as when the extensive lands about a place were turned over for public use.

Whatever the city must pay out for its parks, in dollars and cents, it should be kept in mind that the cost of parks is relative rather than absolute, a large park being no harder for a large city to support than a small park is for a small town.

Parks are regularly under the supervision of a "Park Board" elected by the citizens or appointed by the mayor or council. The Park Board is generally made up of interested citizens who serve without pay. Its business is to pass upon all policies of park acquirement, planning, and upkeep. It is of benefit to have the terms of the Park Board arranged in such a way that there is a gradual rather than a complete change in the personnel of the Board with each election; one member, for example, retiring each year. In this way its policy is kept fairly constant. Nothing is more detrimental to park development than a constantly

together, from the Lynn Woods on the north to the Blue Hills Reservation on the south, by which one may go from one to any other, without leaving the park system.

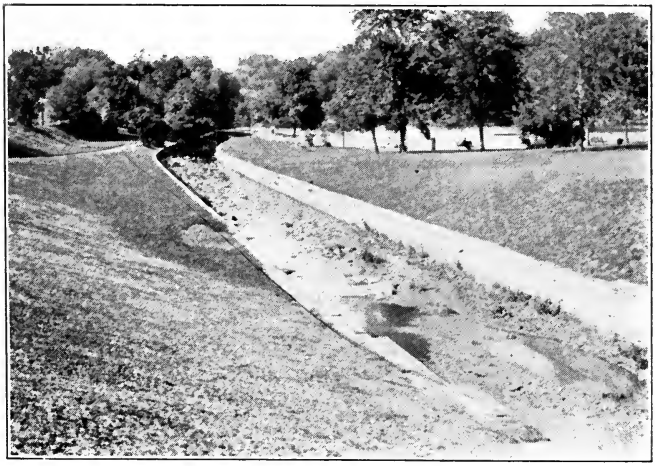
[6] Cf. p. 209, par. 3.

changing policy. In the employ of the Park Board there is usually a Park Superintendent whose duties are to look after development and upkeep. In his hands lies much responsibility for the success of the town's parks. Too few communities rely in matters of planning and lay out upon the services of one who is really trained in park design; too many, upon the talent of a local contractor whom chance and a pull have landed in the position of Park Superintendent. The result is almost certain to be the home-made, and wholly unsatisfactory type of park to which one can hardly point with pride.

The carrying out of special park work is usually done by contract with local or other firms, under the supervision of the Park Superintendent; the work of regular upkeep being done by regularly retained employees. The conducting of establishments of refreshment or amusement in the parks, is usually managed in the form of "concessions" to private parties who pay to the city a fee for the time privilege of operating certain of them within the park. A more ideal method, and one which has been found practicable would be to have this work undertaken as part of park administration,[7] though this would add a good deal to the duties of those in charge.

[7] Cf. *Making City Parks Self Supporting.* Geo. A. Parker, Supt. Parks, Hartford, Conn. Spec. Bulletin, Am. Civic Assn.

AN OLD MILL SITE MADE INTO A BEAUTIFUL PARK FEATURE
Youngstown, Ohio.



A FEATURE OF NATURAL BEAUTY DESTROYED
This brook, which might have been a park ornament, is made to resemble an open sewer. Cleveland, Ohio.

Summary.—The systematic creation of parks for cities is a modern movement. Parks form an important phase of town improvement in being vitally connected with the general appearance of the town and the health of the citizens.

The various kinds or public open spaces in the town fall into three main classes: (*a*) Public or Monumental Squares; (*b*) Minor Open Spaces, and (*c*) Natural, Country, or Landscape Parks. Each type is distinct, and calls for special treatment.

The question of the choice of site is important to the success of any park, as is also its location with regard to the distribution of population. It is well for a town to have its parks united into a park system, even though not a pretentious system, rather than to have its parks scattered and unrelated units.

Towns and cities acquire parks in various ways. Much responsibility rests with the Park Board and especially with the Park Superintendent in insuring the success of the parks in any community.

CHAPTER VIII

SCHOOLS, SCHOOL GROUNDS AND SCHOOL GARDENS

FREE education in this country is a product of the nineteenth century. Up to that time schools were generally available only for those who could pay a considerable tuition. Since the Civil War public school attendance between certain ages has been made universal. It has been found to be true beyond a doubt that poverty, vice, and crime in adults bears a direct relation to illiteracy, and that by keeping illiteracy at a minimum, such tendencies can be in part overcome. "The test of the intellectual and moral conditions existing in a community will always be found in the schools that are maintained. This is especially true because through the schools the continuity of institutions and race experiences are handed down from generation to generation."[1] These words by a prominent educator suggest the importance of the public school in the life of the nation.

The Prominence of Public Schools in the Life of the Community.—Statutes universally require

[1] *The Making of a Town,* by F. L. McVey, p. 61.

that elementary schools be established and maintained in all areas of local government, with the understanding that they be non-sectarian and that expenses be largely paid from the general tax.[2] It is a fact that the amount spent for the building and maintenance of public schools is usually the largest item on the town's budget, ranging from one-fourth to one-third of the city's entire expenditure.

American municipalities have expended vast amounts of money on public schools,[3] with an almost pathetic confidence in public education as a guarantee for the solution of all social problems. They have neglected other things sometimes to provide for it. Tax payers seldom, if ever, wage war on education. Politicians or party leaders, quick to discover this, have sometimes donned the mantle of professional educator, approving every new scheme which carries with it increased expenditure along this line. The problem of the town and city, then, is not so much to secure appropriations for schools, but to make certain that returns are comparable to outlay.

The Modern School.—Attention has been given in late years to making the school building thoroughly modern. Equipping with the latest conveniences including fire escapes is general and

[2] Cf. *Principles and Methods of Municipal Administration,* by W. B. Munro, p. 358.

[3] Cf. *American City Government,* by C. A. Beard, p. 311, et al.

most wise. The classic style is appropriate for school buildings, and is the style most commonly chosen. Considerable freedom of choice may be exercised, however, according to site and surroundings. The form of the modernly constructed school building of size is found to be best in the form of an H or E, which gains a maximum of sunlight and allows for ready expansion of the plant in case additions are to be made. Ordinances generally require that the area of window space be from one-tenth to one-eighth of the floor space for schoolrooms, and that elementary schoolrooms be not over twenty-four by thirty-two feet in size on account of the danger of eye strain. A further stipulation is that the light should come from one side of the room only. It seems to have been but lately discovered that children are of different sizes and that, therefore, in each of the lower schoolrooms there should be several sizes of desks to accommodate the children.

An increased appreciation of the possibilities of developing artistic sense in the pupils of all grades has resulted in a wave of enthusiasm in "Art for Schools." Not only are children taught to draw, and instructed in the principles of design and nature study, but the interiors of the school houses themselves have been enlivened and embellished by copies of the best works of art, which undoubtedly has a refining effect upon character and taste.

The Location of the School Building.—In the public school building's appearance and location the whole neighborhood is concerned, because it is regarded almost as the private property of each householder with a family. Very directly civic pride is affected by it and Civic Art promulgated. Generally speaking, the school buildings should be located centrally in the locality which it serves.

Not only is the building's appearance an important consideration but so also is its setting. Many good buildings have been rendered ineffective in appearance because of an improper setting. The space demanded for play about school buildings usually assures an uncrowded setting, but not always. Sometimes the building is crowded near other buildings, but when this is done much architectural beauty is lost.

A good setting for a school is that at the end of a street. Its appearance may gain real impressiveness by its being so placed. Again, a fine setting would be facing on a public park. Where such a chance arises it should be embraced. Unfortunately favoritism in site selection and bargains in lots sometimes result in commonplace setting and a loss of effect far exceeding difference in cost of land.

Where the site is level or nearly so, the school building would seem to be best set near the center, and to the front of its lot; where the site is uneven

the highest point of ground, even if toward one side of the lot, will be the most commanding situation for the building. Not often enough are unlevel sites made use of. Expensive filling or cutting is sometimes done where a more beautiful effect could have been secured by adapting the building to the site. Nearly level areas are desirable for the play portion, and further, regular shaped lots give the maximum of use.

School Ground Arrangements.—The modern school building is a thing so carefully planned that it is not a little astonishing to find how little effort has usually been made to give to it worthy surroundings. School grounds do not in most cases keep pace with the structures upon them. There is often lack of foresight in the use of the area, and evidence of penuriousness in the fixing up of the grounds.

The reason for this is that by the time the School Board has secured the new building and paid the bills for it, it feels as though its duty were done—certainly as though it had spent all of the money that it possibly could. But this attitude is a wrong one. The cost of fixing up the school grounds is a very small fraction of additional expense. The added beauty of appearance, giving to the building a worthy setting, the increase in utility gained by proper arrangement and the greater attractiveness to the boy or girl who must go to it for so many days out of the year, are considerations which should

AN INVITING HIGH SCHOOL WITH AN INVITING SETTING
East Cleveland, Ohio.

A SCHOOL GARDEN, DAVENPORT, IOWA
Photo from Davenport City-Beautiful Garden Contest.

make an appeal to every group of persons on the School Board and to all part owners in the school establishment.

To get down to specific recommendations concerning school ground arrangement, it may be said that the following principles easily understood should be followed in the division of the lot; there should be a public portion designed to set off the building. This can be done with a simple well-kept lawn, with shrubbery planting and flowers, or often, if the building foundation is high, with terracing. Entrances should be direct. Time is precious for the hurrying scholar. The main walks may be eight to ten feet wide and should be of permanent material. There must always be a portion devoted to play and recreation. This is an important part of the school grounds, as it is the most intensively used. There should be a separate area for the play of the boys and of the girls. If possible, this play area should not extend to the front of the building. Games of basket ball and volley ball are enjoyed by girls as well as boys, and these may be provided for if space permits. School play yards are often equipped with apparatus, such as swings and bars. When this equipment is in use it is advisable to have a play supervisor in attendance, and to lock swings and take down bars at other times than at play hours to avoid accidents. If small children attend the school they had best be

given an area by themselves with swings and sand boxes where the larger children will not disturb them. Finally, on school grounds there should be a portion devoted to the needs of service; coal in considerable amount and other supplies must be brought in from time to time, and ashes and rubbish taken away. This area may be small, but it is necessary.

The Planting of School Grounds.—By means of proper planting there is almost universal opportunity for improvement. The planting need not be of an expensive character. Whatever planting is done must not interfere in any way with the full use of the various parts of the grounds. Trees and shrubs should be grouped where their shade is needed or where they serve to enframe the building from the street, never in a position to be in the way of play. Shrubs should be grouped at the street entrances and about the base of the building, but not in front of basement windows. They may form a running boundary of varied height about the sides and back of the school grounds. In some localities schools have planted their property under the direction of a far-seeing teacher, the pupils carrying out the plan, thereby learning something of the practical side of planting, and the value of created civic beauty, first hand. Surely our schools should be made to look as attractive as possible, if for no

other reason than to keep the pupils from regarding them as barren prisons.

The trees useful for school grounds are many, prominent among them would be the ash, the hard maple and the arching elm. There is a useful group of the tall growing shrubs or small trees for boundary planting, among these would be the stag-horn sumac, the buckthorn and the white lilac. Of the shrubs there should be chosen those notable for pleasing flowering qualities especially during the spring weather. In general, the planting on school grounds should be of a naturalistic quality, and may be made up of plants taken directly from the fields. Hedges are useful for marking divisions on the grounds, and giving a trim appearance beside front and entrance walks. The usefulness of vines about and on the building should not be forgotten.

School Gardens.—The school garden has become a prominent factor in many an elementary school of to-day. It is capable of immense good not only in giving the pupil the benefit of exercise and fresh air, but in cultivating in him the quality of chivalry and tenderness for dependent things. Young people are almost invariably fond of pets. It is this trait which is appealed to and stimulated by sharing in the work of the school garden. As has been said,[4]

[4] *Children's Gardens,* American Civic Association Pamphlet, p. 4.

"It is not the intrinsic value of the vegetables and flowers that gives the school garden the right to be, not alone the knowledge acquired of plants and their environment; it is both of these and training —the training of the powers of the child." And again, in testimony of the benefits derived from school garden work one cannot but agree with the following:[5] "Quick discrimination is one of the pronounced qualities resulting from it. Skill with the hands is necessarily an outcome. . . . Industry is not an unimportant result which comes from school garden work. The idea of ownership and the rights of ownership, which come from the possession of a garden, induce the pupil to exercise his ability to make his possession as good or better than that of his neighbor. The natural result of this is industry."

The school garden is often in direct connection with the school or it may be on a vacant lot not far off to which the class go to work under the supervision of the teacher in charge. Exhibits are commonly held at the climax of the growing season and prizes given for the best products and for the best appearing garden. The interest attached to such competitions by the young competitors is evidence of their value.

In some communities garden clubs are formed

[5] *The School Garden,* Bulletin 218, U. S. Dept. of Agriculture.

by separate schools for summer work, the name of the garden club being on display in a prominent place in the garden of the youthful member. It is considered important that the children should be allowed to do all of the work on their gardens from the first preparation of the ground to the final gathering of vegetables and flowers. Supervision of the plats by the teacher, however, is necessary as the work progresses.[6]

The School as a Community Center.—Mention should be made of the praiseworthy plan of opening school grounds for the play of children after school hours[7] and during the summer months in those regions of the city where places of recreational character are scarce. This is similar to the recent movement of encouraging the opening of school buildings on certain nights of the week for the benefit of the pupils and the grown people of the surrounding neighborhood.

Such a getting together means in many a family a chance for recreation and the fraternizing of young and old which is possible in no other way. Already in many communities the school house, formerly dark, is illuminated on special nights for meetings of an educational or social nature. Here clubs of pupils meet, and evening lectures occur.

[6] Cf. *Children's Gardens for School and Home,* by Louise Kline Miller.

[7] Cf. par. 5, p. 111.

The movement spells a larger purpose and an even greater influence for the public school. A word picture of this movement's aim is given us by one interesting speaker.[8] "Our school buildings ought to be centers of social enterprise and coöperation; places where . . . everything shall be considered from the point of its real value—its value to the community and to the world. All kinds of wonderful ideas will spring from the free soil of these centers. Why could not such neighborhood organizations be the backers and promoters of art and science in every form? Why could they not be as powerful in their spiritual influence and practical inventiveness as the parish church was in the days when the church was the promoter of art and science?"

Summary.—Free education has been given a regular place in our civic life. Large sums have been expended by communities upon education. It behooves each community to make sure that what is so used is wisely expended.

Much attention has been given of late to the planning of school buildings to render them efficient and safe. More care than now given, is due the surroundings of the school building to render the grounds more attractive and more useful, a worthier setting for the building upon them.

[8] *The School House as a Community Center,* by Margaret Woodrow Wilson. Paper. Am. Civic Association. March, 1916.

School gardens are carried on in connection with many schools. They are a means of benefit to the pupil in both a physical and educative way. Through the opening of school grounds for play and school buildings as community centers, school plants are capable of serving a larger purpose than ever before.

CHAPTER IX

PLAYGROUNDS AND NEIGHBORHOOD CENTERS

THE widespread movement for the establishment of playgrounds in towns and cities is so general to-day and of such proportions that its importance cannot but be recognized as something significant even by the casual observer.

Parks and playgrounds at first sight may appear like ornamental frills in town equipment, but, just as parks, aside from their ornamental value, were seen to be real necessities, so playgrounds are necessities in dealing with certain phases of civic life.

It is true that the public playground administers primarily to the needs of young America, but the recreation center in its broad sense, as we shall see, does not leave the elders out of consideration. Dwellers in cities find in it opportunity of recreation for old and young. Further than this, the modern playground, particularly in the large city, forms an effective means of welding together the heterogeneous elements which go to make up the community.

The Playground Movement.—The municipal playground is typical of present-day methods in dealing with social problems. Like modern medicine, its effort is aimed at prevention even more strenuously than at cure. It substitutes for a wasteful and demoralizing philanthropy one that is constructive; it says that those who would receive gifts must do their part to merit them. "The motto 'What can we get for the asking?' has given place in playground work to 'What can we do for ourselves and our country?'" As a symbol of this form of benefit the modern municipal playground stands ready to serve all those who go to use it. It speaks forth the old saying, "Heaven helps those who help themselves."

The ideal of working for the prevention, rather than the punishment of juvenile crime is so sane that it has become universally recognized. And this, briefly, is why the public playground establishment has received the backing and the impetus that it has in all parts of the land. The town and city, to put it briefly, have figured out that spending money to insure healthy minds and bodies in its young citizens is good municipal business.

Historical.—Though playgrounds have reached such a sure abiding place in our town and city life, the movement is a comparatively recent one. For long foreign cities, and particularly German cities, had made provision for the play of small

children. In 1886, following this example, there were established three piles of yellow sand in the yards of the Children's Mission, Parmenter Street Chapel and Warrenton Street Chapel, Boston. The next year there were ten heaps in the courts of tenement houses and elsewhere, and one heap in the yard of a school house to be used in connection with a vacation school.[1]

From such small beginnings the work grew. The great use made of these early opportunities led to the establishment of public playgrounds on a larger scale, at first with very little apparatus for play, and later with abundant equipment.

The first city to follow the example of Boston was Philadelphia, in which in 1893, two summer playgrounds were started by interested people. In 1895 New York began to busy herself. The first summer playground in Chicago was started by a conference of the Associated Charities as late as the year 1897. Brooklyn, Baltimore, Cleveland, Minneapolis, and Denver about 1900 became interested in the matter—the Woman's Club in most places being the chief promoter.

Boston's Municipal Playground System, of which there were about thirty-eight as far back as 1911, cost the city a little over $3,500,000. New York City is said to have the most costly playground system in the world, her playgrounds have prob-

[1] Cf. *American Playgrounds,* by E. B. Mero.

ably cost in the neighborhood of over fifteen million. Is it any wonder that foreign cities have stood aghast at these expenditures? Chicago has undoubtedly the most nearly ideal system of municipal playgrounds in the country in its South Park District. On these large sums have been expended, justified by the yearly attendance of millions of citizens, young and old.

The Importance of Play.—The value of play—its necessity—needs no argument. It is one of the primal instincts of mankind. All children and animals play as naturally as they breathe. It is the expression of their imagination and the outlet of their energy. As young people grow to maturity the need of play is no less a necessary factor in their lives. The main difference is that we then call the necessary thing "recreation" instead of "play." Alike in the case of the growing young person or the man, it is "what he does with his hours of leisure that counts for good or ill. It is in the hours of play that the most abiding lessons are learned."

It is not to be supposed that the small boy is going to go into a decline because he has not a public playground. He will play in the alley, on the street, in the vacant lot, and other places. But these are not the best environment for play. The city playground in the crowded city offers a place where no harm can be done to surrounding prop-

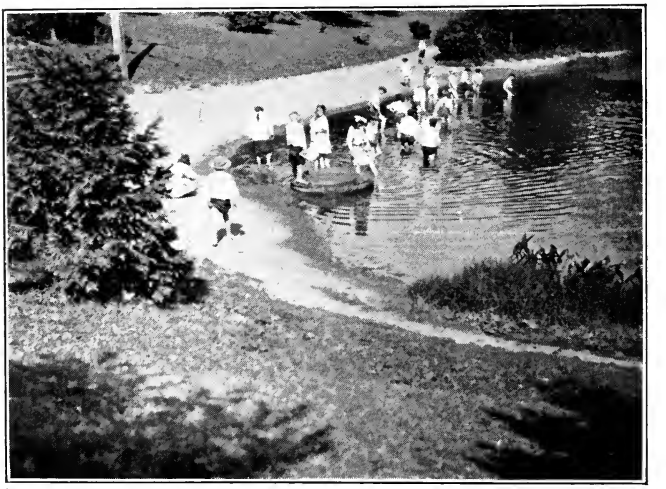
erty, where the youngster is in no one's way, and where with others, he will find out for himself the abiding merits of companionship, generosity, and the principle of personal rights. The advocates of playgrounds have given us some telling slogans; among them are "The boy without a playground is father to the man without a job," and "The boy with a bad playground is father to the man with a job that might better have been left undone."

The Term Playground.—The broad scope of the municipal playground thus hinted at is admirably defined by E. B. Mero in the following paragraph on "What Makes a Playground."

"When we speak of a 'public playground' it is desirable to keep in mind that this term covers a great deal more than is told by a literal translation of the phrase. A modern playground, properly equipped and administered, is a social center—a place for recreation and physical education and a true gathering point for neighborhood activities. In it boys and girls should learn early by actual experience principles of right living. In it big brothers and sisters should cultivate a healthy social relationship. In it fathers and mothers should become better neighbors and more worthy citizens of city, state and country. In it children should do a great deal more than play, important as play is on its own account."

This may sound visionary, but actual experience

A PLAY FESTIVAL IN ONE OF HARTFORD'S PARKS
Thirty-five Maypoles in Goodwin Park, Hartford, Conn. Photo loaned by Dr. John Nolen.



THE LITTLE FOLKS' CORNER IN ANOTHER OF HARTFORD'S PARKS
There are usually a hundred here: the camera man happened along just at lunch time. Photo loaned by Dr. John Nolen.

has proved its practical value; has demonstrated that these benefits to society at large and to individuals can come from neighborhood social recreation centers.

Description of an Ideal Playground System for a Town or City.—The public playground, if it is to be considered anything more than merely a field supplied with apparatus and if it is to fulfill its mission in a complete sense, is to be thought of both as a recreational and an educational center for the surrounding community. An ideal playground system for a large city will have its playgrounds distributed at intervals of about a mile apart; for it has been found that the average effective radius of the recreation center is about one-half mile.

In the ideal playground there is space reserved for little tots, with sand piles and swings, with a nearby shelter for mothers who can there sit and enjoy the company of other mothers as they watch the play of their children. There are wading pools for the young boys and girls, and a separate play area appropriately equipped for those of more strenuous age, with bathing pools, usable on separate days by boys and girls. There are fields for track games, basket ball and baseball, where grown people on occasion can join in the sports. The field may perhaps be flooded in winter for skating.

Groups of swinging bars, ladders, and slides, are to be found as part of the popular pieces of play-

ground equipment. Near the center of activity and easily entered from the street is usually located a shelter or field house. It is important to have the playground so arranged that the shelter housing the entire management can be at one point. Here, besides locker and dressing rooms, is sometimes a branch library, reading rooms, and an extensive auditorium. Fitted in this way the playground center becomes a real neighborhood center, part of which at least is usable throughout the year.

Supervision of the Playground.—Each municipal playground system should be under the supervision of a trained director and each playground area, while in use, should have an attendant in charge. It has seemed to some, a contradiction of the spirit of the public playground that there should be required the presence of a paid supervisor while play is going on, but it has been found that supervision of play is necessary for the greatest effectiveness of any recreation center. This does not mean that initiative is to be taken from the users. In play under direction on the playground, several benefits exist; there results a minimum of abuse to the apparatus used, the young person really gets more pleasure from the playground and he comes gradually to understand that his own desires are not to be asserted if contrary to that which is best for the greatest number of his fellows. He learns, in

other words, something of his place in the community.

Planting.—One of the objectional qualities connected with the average playground in the minds of many is the barrenness and unattractive quality of it. This is true in a good many cases, but it need not be so. Judicious planting will be found to relieve the playground of this defect, making it at once more inviting in general appearance to the users, and screening the apparatus-filled area from the view of the passersby.

The planting may well be a shrubbery screen along the edge, with trees at points where they will not be in the way of games. Thorny plants should be avoided where young people are liable to brush against them. As in the school yard, besides aiding appearances, such planting will be found to have an educational value.

Advice to the Small Community.—The description of the ideal playground carries with it so elaborate a picture as possibly to make it seem unattainable in lesser communities. But it should be remembered that a small beginning is far better than none. Where funds are not available for a large amount of apparatus there should be established at once what the locality can afford.

Good work can be done in coöperation with local school boards, making use of school yards after the

hours of school are over and for summer playgrounds.[2]

A Community and Neighborhood Center.—The terms "community center" and "neighborhood center" are often used interchangeably, but there is a distinction that should be recognized between them. The former is generally used in describing the focal point of the public life of a small community or any particular subordinate center of a large city. The community center bears the same relation to the local business and residential area round about it that the civic center bears to the whole town. Here shops and local public amusements are to be found, and branch post office, and public library are located.

The term "neighborhood center," on the other hand, is used of the center of social rather than of public activities. It is a gathering place for social life in a local neighborhood. The modern municipal playground well organized and ideally equipped merges into the neighborhood center, the description of the one answering in great part that of the other.

Often a school house forms the seat of such a center, or it may be a building created by gift, or by the community or it may be in the city playground itself. In the ideal neighborhood center, besides provision for recreation, there are to be

[2]Cf. par. 2, p. 101.

found facilities for public gatherings.[3] Here town fathers may gather to discuss politics, here elections may be held and town conditions discussed, here boys and girls clubs, and the clubs of elders may meet, cooking classes, dramatic performances, and many other activities may be carried on to the end of bringing together the people of the neighborhood, and the creation of a spirit of community loyalty.

Summary.—Like parks, playgrounds are to be regarded not as frills, but as necessities. The movement working for the public playground is a true expression of present-day constructive philanthropy. It is a modern movement, but one which has become widespread. The character of municipal playgrounds varies, but the aims are similar, i.e., helping the citizen, particularly the young growing citizen, to an understanding of his place in the community through association with his fellows on the playground. Play supervision is a necessary part of the playground programme.

In its broad scope the modern playground is to be regarded as a social center—a place for recreation and a gathering point of neighborhood activities. The neighborhood center is parallel in part with the recreation center, serving, however, a somewhat broader function.

[3] Vid. Frontispiece. Proctor Memorial, Peoria, Ill.

CHAPTER X

PROBLEMS OF SANITATION—WATER SUPPLY AND SEWAGE DISPOSAL

THE health of the community was once looked upon as something in which chance played the main part. With modern medical science gauging the urban pulse we have come to know that chance plays but a small part in public health. The present day idea is that the community is healthful or unhealthful because of the existence of conditions over which science has very distinct and direct control.

No longer is the city the synonym of filth and pollution that it was in times past. The best brains have been employed to make the city a good and a safe place in which to live. The modern community, too, has found that the problem of health cannot be separated from the problems of prosperity in material lines. No town can be prosperous in business which is not a healthful place in which to live.

Average Attitude Towards Problems of Sanitation.—Despite the immense importance which the problems of water supply and sewage disposal bear

to the life of the community, most citizens take these benefits for granted. Few citizens realize that modern city life would be impossible but for the science that has solved the problem of bringing fresh water daily into every home, and taking out wastes in the form of sewage.

The question of water supply and sewage disposal are ordinarily called the problems of sanitation. Modern sanitation is one of the foremost of municipal sciences. Of its complexity few people dream. The network of pipes and sewer mains underlying each street, the numerous connections thereto, the stations which furnish and pump the water, as well as the complicated plants which have to do with final disposal of sewage, are things which, since they are out of sight are out of our thought.

Water Supply.—"Next to the air we breathe water is the greatest of human necessities." In biblical, and later times, communities were dependent for their water supply upon small streams and open wells. The scourge of fire and pestilence was needed to teach the city the necessity of better methods. Though the Romans did much to develop water supply for their cities, it was not until the nineteenth century that municipal water problems were taken up in earnest.[1] The modern

[1] The Romans first took up the problem of securing pure water in large amounts at a distance, for the city of Rome,

system when it at length arrived came in with a rush as the following figures will show:

In 1850 there were only 83 public water works in the U. S.
In 1880 there were 600.
In 1910 there were nearly 5000[2].

Two paramount questions stand out in consideration of a town's water supply—the question of *quality* and the question of *quantity,* the first has to do with *source,* and the second with *amount.* Where the question of drinkableness can be answered in the affirmative, a big question has been solved. Absolutely pure water is hardly possible, but it must be sufficiently pure to be no longer harmful. Besides being fit to use it must be furnished in amount sufficient for all purposes.

The Sources of Water Supply Compared.—The

and it is noticeable that in 305 A.D. some fourteen aqueducts, from seven to sixty miles in length, brought in pure water to the city from surrounding hills. In 1800 London's water supply consisted of a few miles of bored logs laid end to end. In Chicago the water supply in 1842 was pumped from Lake Michigan by a twenty-four horse power steam engine into nine and one-fourth miles of wooden pipe supplying one thousand hydrants. These pipes consisted of cedar logs 14 in. in diameter with a 2 in. by 3 in. bore.

[2] *Principles and Methods of Municipal Administration,* by W. B. Munro, p. 125.

most important available sources of water supply for towns and cities are:

1. Rivers.
2. Lakes.
3. Wells, ground water.
4. Impounded water sheds (Reservoirs).

The practice of drawing city water from rivers and streams is common. But cities know that water taken from such a source needs special treatment; otherwise it is a source of danger. The old saying that rivers purify themselves every seven miles is not to be depended upon. Nor is the purity of water to be determined by its appearance. Water of muddy appearance may be far safer for drinking purposes than water which appears pure as crystal. In this connection it is worth noting that water in a stream is often safer when the river is low than when flowing swiftly in freshet time. Harmful bacteria tend to settle in the quiet pools, which, when the river is high, are carried along down the stream, polluting the whole current. It is hardly necessary to add that the intake for a town's water supply must be upstream from the sewage outflow.

In getting water from a lake into which the sewage is led, it is necessary to go far out for the supply. The merit of a lake as a source of supply lies in its even quality and its inexhaustiblcness.

Frequently, municipally, drilled wells are used to supply the town with water. By this method pure water can be secured first hand. A number of wells are drilled at a certain point and the pumping station is there located; when more water is needed more wells are drilled. For cities of considerable size this method becomes impossible, as the supply of water obtainable in this way is limited. The system is expensive of installation, but has the merit of furnishing a supply which needs little subsequent filtration.

A further source of water supply for communities and the one upon which large cities must usually depend, is that of impounding the water furnished by the springs and streams of a certain region, in a reservoir. This necessitates sometimes the buying up of all land lying on a water shed, and involves much expenditure even when the work consists only in reservoir construction. Precaution must be taken regarding the upkeep of the land so reserved to keep the reservoir itself free from pollution. Caution may well be taken to prevent a reservoir situated up on high ground from being a menace to the town's safety.

Amount of Water Supply Necessary.—An adequate amount of water supply is estimated at about one hundred to one hundred and twenty gallons per capita per day.[3] The figure appears large.

[3] Cf. *Principles of Municipal Administration,* by W. B. Munro. Chap. Water Supply.

The amount named is made use of in the following way: about ten per cent is used for public purposes, twenty to forty per cent for industrial purposes, about twenty per cent for domestic use, and from twenty to twenty-five is lost by wasting due to leakage before the water reaches its destination or to defective plumbing at the end of the pipe.

That there is a waste in purifying all of the water for a town's use when but a fraction is used in drinking is a thought which must occur to us. Paris is equipped with a two-fold system of drinkable and nondrinkable water. The danger, however, that people may drink from the wrong pipe, and the expense of installing a dual system has led American municipalities to a purification of all water, despite the fact that there is need that but a small part of it be pure.

Not only should the amount of water supply for a town be greater by a certain per cent than its actual need, but in addition provision must be made for the town's growth.

Communities are coming more and more to use the meter system in place of the "pay by the faucet" system for water charges. The former method prevents waste and seems to be profitable. A reasonable minimum rate should be insured the consumer. Much of a town's beauty of appearance in the summertime depends upon a water supply that will allow of its frequent use by the

householder in lawn and plant sprinkling, without the penalty of exorbitant water bills. One can cite towns whose poor appearance in the summer time is due to the fact that water is too high to "waste" on the grass and the flowers.

Suggestions in Regard to the Water Question.—From what has been said many points will suggest themselves which can be applied to local communities. Too great care cannot be given to a pure and abundant supply of good water. The "ever lurking danger at the faucet" must be avoided at all costs if our cities are to be healthful communities. Make-shift filters are not to be depended upon to supply the household with pure water which the town itself should provide. Money spent on water supply is a good and a necessary investment for any city. The best expert advice is economy when it comes to this question. Towns closely situated might unite in securing a good water supply, thus enabling them to save expense in cost of advice and construction.

To consider the subject from the side of esthetic improvement, where the source of the town's water supply is lake or reservoir, these sites may be made into public park reservations, adding to the number of city park areas, and insuring to the immediate region segregation from human dwellings.

Stand pipes might easily be given more suggestion of beauty. Their forms suggest dignity—their

site grandeur. Too often they are but bare riveted stacks. Pumping stations, too, could be made more imposing without being made more costly.

Sewerage.—Up to within quite modern times street gutters served the purpose of taking off surface water and house waste, but filth, contamination, and epidemics of disease were the penalty of such measures. It has been for the modern city to solve the problem of getting rid of the wastes in a complete and effective way.

The two terms "sewage" and "sewerage" are not synonymous. The former is used of the product to be disposed of, the latter of the method of disposal. A detailed description of the mains, their character and location, is not necessary here, but it would be worth while noting that there are two distinct systems of mains in use; these are what are called *separate* and *combined* systems. By the separate system, storm water and sewage are carried in separate mains, to points of disposal; by the second, both are carried in the same main. The experience of cities has led to the conclusion that a separate system is better, for, although storm water theoretically is an aid in periodically flushing out the sewer, the pipes of a combined system must be so large, that in dry weather sufficient flow is not sure of being maintained to keep the mains free from deposit. Then, too, sand, leaves, and other rubbish carried into the mains by storm water add

to occasional obstruction. Another argument against the combined system lies in the increased capacity necessary at the disposal plant.

Methods of Sewage Disposal Compared.—Of the various methods of sewage disposal the following may be named as the systems most generally in use: (1) *Direct discharge into streams and lakes*—a prodigal, and on the whole a selfish method of procedure in that it takes the easiest and cheapest method regardless of towns further down stream. (2) *Purification of sewage by settling tanks and filtration.* The sewage under this method flows into large tanks through which it flows slowly allowing the greater part of suspended matter to settle to the bottom, precipitation being hastened by chemicals, it then passes on through sand and gravel filters, often sprinkled on, the purification being augmented by aëration. This perhaps is the method in most general use. (3) *Septic tanks.* This method is carried on upon the principle that there are certain bacteria which, when introduced into the sewage, bring about the decomposition of harmful bacteria. This method for an entire city requires an elaborate system of installation. The process is a comparatively slow one and, except when installed on a large scale is most useful only for cities of moderate size. (4) A final method of sewage disposal which may be mentioned is that of *outflow over land* allowing the sewage to

purify itself by contact with the air and the soil. This method called "sewer farming," necessitates the use of larger areas of land than most cities can spare for such purposes. In Europe it is often used extensively.

Summary.—There exists a direct relation between the health and the business life of the community. Water supply and sewage disposal are vital questions in the life of the town for without their proper handling urban life would be impossible.

The sources of water supply for cities are: (1) Rivers and streams; (2) Lakes; (3) Wells, and (4) Impounded water sheds.

The methods of sewage disposal may be named in the main as follows: (1) Direct discharge into streams and lakes; (2) Purification by settling tanks and filters; (3) Septic tanks, and (4) Outflow over land. The choice of method of sewage disposal as of water supply will depend upon existing local conditions.

CHAPTER XI

PROBLEMS OF HEALTH, COMFORT AND SAFETY

BESIDES the matter of sanitation there are other questions which concern the health, comfort, and the safety of the town dweller. The matters involved under such a consideration are of every-day concern. That some of them seem so ordinary as to be unromantic and uninteresting does not detract from their importance.

Air and Sunlight.—We often use the term "free as air." We think of air as limitless and of unquestioned purity and of sunlight in much the same way. But it is a fact that in towns and cities air and sunlight are very precious things. It is hard to believe that there are parts of large cities where pure air is never breathed, and into which sunlight never penetrates, even at high noon. Gases, smoke, and fumes from industrial plants, and dust from the street, all contribute toward rendering the air in cities impure. High buildings, narrow streets, too thickly planted trees, and improper housing conditions help to keep out precious sunlight. To secure air and sunlight the city is

often forced to pay a high price, if indeed it may secure them at all.

In seeking improvement questions must be answered by proper action; for example: are factories and industries so located that prevailing winds carry smoke and fumes over the town? Are structures allowed to be built so tall that air and sunlight are kept out? Are buildings and private houses allowed to be placed so closely together that air and sunshine cannot enter in amount sufficient for health?

Food Supply.—The interdependence between town and country is seen most plainly in the matter of food supply. Though the farmer can supply all of his immediate wants from the acres which he works as his farm, the city dweller must depend for practically all of the commodities which support life, upon the world outside.

As the supply of these commodities must be in proportion to the size of the town or city, the question of food supply becomes of increasing importance as the town grows. Careless methods in handling should be guarded against, a good quality of food stuffs secured, and everything possible done to insure sanitary storing. Larger cities, because of better established systems and food regulations, are frequently not as great offenders as the smaller town in keeping up the standard of cleanliness and purity.

The public has at last awakened to the necessity of getting pure food. "Let the purchaser beware," was the well-nigh universal attitude on the dealer's part in former years. Now pure food acts have made it hard or at least undesirable to deceive the public. Such acts have assured the purchaser that the quality of food is as advertised, and municipal inspection has put a penalty upon the use of short measures and other methods of "taking in" the buyer.

As to municipal inspection and the control of public food stuffs, our cities in America have not yet progressed to the point attained by some European cities, where the municipality owns its own abattoir requiring that all meats for the city be furnished from this source. Much might be said in favor of the establishment of well-run and well-inspected municipal markets, where the consumer may purchase directly from the producer at a fair price without paying a toll to the middleman, who often sets the price at will.

Disposal of Garbage and Other Wastes.—The disposal of wastes in the form of garbage, ashes and other material no longer useful to the household, is another matter which concerns the health of the community. Happily in most of our cities, the day when a pig might be kept on each city lot as a private garbage disposal plant is gone, and even

chickens are looked upon askance by those who have in hand the community's health.

Every town should aspire to the condition of having garbage, ashes, and rubbish collected by the city at regular intervals. Private collectors are often efficient in making collections, but private residents are not to be depended upon as a group to see to it that these matters are taken care of when needed. Garbage should be collected *at least* twice a week in the summer time and once a week in winter. Where the municipality undertakes the collection of household wastes, such work may be accomplished in various ways. The municipality may own its own wagons and teams. This labor being performed by private collectors using their own means of hauling, under contract to the city. The last-named method is found to be very efficient as it brings in the element of competition which makes for efficiency in carrying out the work. Of course, garbage should not be carried through the street in uncovered wagons.

Method of Handling Garbage at the House.— A suggestion for improvement may be given concerning the proper method of keeping garbage pending the arrival of the collector. Sheet-iron cans with close fitting tops to keep out flies, and securely fastened against marauding dogs and cats, are much better than open top barrels. Wrapping up the waste product in a newspaper before con-

signing it to this receptacle will go a long way toward keeping the can in good condition, and preventing its abuse at the wagon by hammering. A very good type of can is one which is set into a concrete well so that its top is flush with the surface of the ground. The private incinerator in the house is a method which has lately come into use in modern houses, where its cost is not prohibitive: by this method the garbage is wrapped in a paper and dropped into a slot leading to the cellar and there dried and burned.

The Value of Waste Products.—Although waste products in the eyes of the householder, it has been found that considerable value still remains in garbage and in ashes. A large per cent of garbage is fat; some municipalities have derived considerable revenue by rendering it and making soap and other products therefrom. As much as twenty to forty per cent of ashes has been found to consist of combustible materials. This, when separated from the dead ash, is capable of use for fuel purposes by the city.

The most common use to which ashes and useless rubbish are put is that of filling in low ground. Such land may be turned to excellent account for public use. Garbage and other material which is either offensive or liable to settle as it decays should not be dumped upon the ground for filling.

Our American households are proverbially wasteful. It has required the stress of war to teach many what a salvage of such articles as old iron, paper, rubber and so on, may produce in dollars and cents. The following list of prices offered for different "junk" is illuminating:

Rags	2c. per pound
Mixed papers	40c. per 100 pounds
Folded newspapers	50c. per 100 pounds
Books and magazines	70c. per 100 pounds
Rubber boots and shoes	3½c. per pound
Automobile tires	3c. per pound
Inner tubes	8c. per pound
Bottles	4c. per dozen
Garden hose	½c. per pound
Copper, brass, and aluminum	16c. per pound
Lead, zinc, and lead foil	3½ to 4c. per pound
Light brass and plumbing brass	7c. per pound
Scrap iron	50c. per 100 pounds

Guarding the Health of the People.—The municipality must actively guard the health of its citizens against disease and conditions which harbor its existence in so far as possible. To this end each town elects, or has appointed for the purpose, a group of citizens known as a Board of Health, endowed for special occasion with large and drastic powers, whose duties in the main are as follows:

1. Careful and systematic inspection of the general condition of Public Health.
2. Keeping a record of results.
3. Recording all cases of infectious or contagious disease.
4. Putting up card warnings and enforcing quarantine.
5. Disinfecting homes free of charge.

In small towns the personnel of such a board is usually made up of local physicians with one or two other individuals to serve as executive officers. In larger cities a sanitary engineer usually has the chief responsibility on such a board. Strange as it may sound, the work of health boards involves much that the physician is not trained for. A suggestion, since the remuneration for a sanitary engineer is sometimes above the small town's ability to pay, would be that neighboring communities unite in the employment of a well-trained sanitary expert who would head the work of the board in each.[1]

Although so much for the well being of the town depends directly upon the work of the Board of Health, one finds that a disproportionately small per cent of its annual outlay is spent by the average city for the work of the health department.[2]

[1] Cf. p. 120, par. 2, *Coöperation in Water Supply.*

[2] "New York City," it is said, "which leads the country in the generosity of its expenditures and the scope of its health activities, devotes less than two per cent of its annual out-

Harrowing authentic instances might be cited to show the havoc wrought by epidemics where careless methods of handling health problems have gone on unnoticed and reformation has begun only after a terrible lesson has been learned. One health board, after half-heartedly investigating the *cause* of a recent typhoid epidemic in one of our mid-western towns, returned the report that "there didn't seem to be any." Such a Board is a menace to the community. We are on the verge of an awakening in matters of public health administration but we are not yet ready for congratulations.

Nuisances Affecting Health and Their Control.— In every community there are certain unpleasant things which we term nuisances. The more optimistic among us try to overlook them. They are like weeds springing up when the citizenship is off its guard. They arise when an individual or set of individuals put private interest ahead of the public welfare. These anoyances are of two kinds, those affecting comfort and health and those affecting the community's appearance. Sometimes they affect both. The latter group we shall deal with in the next chapter.

Some of the nuisances affecting health are so

lay to health work as compared with approximately 5 per cent for fire protection, 9 per cent for police, and 17 per cent for education." *American City Government.* Chas. A. Beard, p. 263.

subtle that it is only the prolonged endurance of them that injures the health of the citizen, as in the case of smoke and noise. At length they call for suppression as directly endangering the health of those concerned.

In our own country the charters of towns and cities tend to limit local powers. Sincere effort to eradicate certain nuisances is often handicapped by existing laws. In matters where public health is affected, the law is much quicker to come to the relief of the citizen than where the appearance of the town is concerned. But light is breaking, and we have reason to hope that local government may soon have a free hand to deal with both classes of annoyances as it sees fit.[3]

Smoke and Fumes.—Large cities and heavy atmosphere have for a long time been associated together in our minds and with justification. There is no doubt that continued breathing of smoke and fumes from furnaces and industrial plants is detrimental to health, and that smoke itself is a destroyer of architectural beauty and a damager of goods exposed for sale. Effort has been made in many communities for the abatement of the smoke nuisance with varied success. Many smoke ordinances are ineffective in being too mild and others in being too drastic to insure their enforcement. A number of cities render negligible the efforts of

[3] *City Planning and the Courts,* by R. E. Cushman. Paper.

local residents and plants by excepting the smoke emitted by locomotives.

The equipment of residences and office buildings with the best grade of smoke consumers has been recommended as an effective means for doing away with the smoke evil, but good authority says that smoke prevention does not necessarily mean the use of a smoke consumer. An equally effective recommendation is that of education of the public in the proper manner of burning coal. Keeping in mind the axiom that all smoke is waste, will help many to a realization that it is to their advantage to be careful in the handling of fires.

In manufacturing communities plants should be located, so far as feasible, on the lee, not on the windward side of the town. If this recommendation were followed, the smoke nuisance would be lessened in many communities.[4]

Winds, Dust and Street Dirt.—Not a great many towns and cities can be classed as windy cities, but occasionally strong winds constitute a real nuisance and a menace to health partly because of the dust they carry. Where the wind is extremely noticeable, the fact is sometimes due to the direction in which streets are laid out. Thoroughfares are more comfortable for travel if located so that they do not get the full force of prevailing

[4] Cf. *American Municipal Progress,* by Charles Zueblin, p. 84.

winds. High buildings often add to the bad conditions, directing the wind like a funnel.

Too much cannot be said for regular street cleaning by sweeping or flushing. Fortunately, most cities do not now need such advice. Keeping streets clean has become a movement which has been properly followed by cities from coast to coast, and one of great good from the point of appearance and public health as well. Modern pavements of even surface render it a much easier task than formerly to clean streets. New York City was the leader in organized street cleaning. The history of the work and organization of the "white wings" brigade in that city forms an interesting paragraph in the history of the progress of modern cities.[5]

Unnecessary Noise.—So accustomed have we become to noise that we are not apt to realize that much of it is entirely preventable. The clanging of street car bells at all times, the shouting of newsboys and venders, and the tooting of train whistles are a few of the things which the modern city is coming to regard as nuisances.

That continued noise is detrimental to the well being of nervous persons and a retarding agency to convalescents, is indisputable. Already cities have established zones of quiet about hospitals which passing traffic must respect. In the resi-

[5] Ref. *The Improvement of Towns and Cities*, by C. M. Robinson, p. 47.

dential sections of many cities, and frequently in the business districts unnecessary noise is suppressed by ordinance. Armed with patience, persistence, and courtesy, and supported by public opinion aroused perhaps by a friendly newspaper, any one person or organization may do a great deal in bringing about improvement in this matter.[6]

Bad Odors.—Bad odors come from causes so obvious and easily corrected that they do not ordinarily form a serious problem in the average community. Their offensiveness is apt to react upon the offender as well as the public. Such nuisances are usually temporary annoyances in the modern city, due to local disobedience of rules laid down, or to derangement in the mechanical equipment of a particular part. At times, however, their continuation demands correction.

Crude and unsanitary methods of garbage disposal, defective plumbing, the use of small streams within the town for the discharge of household or industrial wastes, the unpleasant proximity of industrial plants such as glue or paint factories, abattoirs, and tanneries are some of the sources of annoyance which may be named. As with other nuisances, tact and perseverance are the watchword in bringing about improvement.

The Fly Crusade.—The most pervasive and pernicious among the pests of the modern city is the

[6] Cf. below, par. 1, p. 222.

house fly. The danger to health from this creature is just beginning to be appreciated. The fly is one of the most efficient of all the carriers of disease. By the former generation this creature was mildly accepted as a nuisance which came with warm weather, to be borne with patience because unavoidable. The fly has been thought of largely as a pest which returns in numbers each season from an unknown land, a good deal as do the migratory birds. Now it is known that the origin of the house fly is quite local, that he seldom flies a great distance from the location where he hatched out, and that, therefore, if the town exercises care in his extermination, there will result a comparatively flyless season that year and the seasons following.

The surest means of exterminating the fly is to do away with his breeding places. The slogan "swat the fly" indicates what, until lately, has been the character of the crusade against him. Fly swatting may be a diverting exercise, and effective in ridding the house of captive flies, but it does not go far in ridding a community of them. Flies breed largely in filth, and especially in standing piles of stable waste. By doing away with such places the pest is sure to be materially lessened. One cure is that of requiring all stable manure to be cleaned up and hauled outside the city limits once a week. For temporary defense, a generous

solution of borax sprinkled on the pile is effective in keeping eggs from hatching.

Other Nuisances.—It is not possible to consider every one of the nuisances to which the town is heir. A list of them would include a varied assortment, from mice in the pantry and rats in the cellar, to such annoyances as low hanging branches of trees along the sidewalk, and a hundred other things, the correction of which would mean a community with steadier nerves and sweeter tempers. Discomforts easily regulated and suppressed are often those of widest spread. To enter town improvement through the humble door of righting these ordinary unpleasantnesses would be effort not spent in vain.

Police Protection.—Closely allied to the subject of comfort and safety is the matter of police and fire protection. A very large proportion of the city's budget goes toward these ends.

No argument is needed to convince us of the importance of police protection; it has become as much a part of the city's administrative duty as that of water supply. Writes Charles Zueblin: "A thoroughly satisfactory police service can only follow a desire on the part of the people to have the law enforced and a willingness to pay for talent, as well as physique and character."[7]

In the enforcement of the law the policeman

[7] *American Municipal Progress*, p. 136, by Chas. Zueblin.

and the citizen are both presumed to be human. In Toledo and Cleveland, a golden rule policy has been tried out with many good results; the policy having to do with curbing the personal enmity sometimes evident on the part of the man in uniform against all suspects.

Fire Protection.—Few persons realize the enormity of fire waste in our country. We are careless in regard to fires as the following paragraph shows:

"If all the buildings burned in the United States in any single year were placed side by side they would form an avenue of desolation stretching all the way from New York to Chicago. At every three-quarters of a mile some one would have been found burned to death."

In thirteen prominent cities of Europe with a total population of little over eight million, the total fire loss in 1910 was a little over one million dollars, while in five large American cities of approximately the same total population the fire loss for the same year was fifteen million dollars.

The discrepancy is due in part to the fact that more of our buildings are of wood construction than in the continental cities, but in the main it is to be laid to carelessness. In European cities rigid rules are laid down as to building materials to render them fireproof as far as can be done, and when fires do occur a rigid investigation follows,

A SIGN JUST OUTSIDE PARK PROPERTY BUT DEFACING IT
We can only gasp and exclaim, "The cheek of it!"

THE KIND OF SIGN WE ALL BELIEVE IN
The public should do its best to conform to the request.

after the fashion of an inquest, to determine where the responsibility lies, and to penalize the offender.

Safety Commissions and the Safety First Movement.—Much of the injury and loss of life that takes place in our communities is preventable.[8]

To protect the public, numbers of Safety Commissions have been organized whose duties are to show the public where danger lies, and to see that needed signs of warning are put up where they are needed.

Stimulated by thought along lines of conservation, a movement known as the "Safety First Movement" was inaugurated in 1915. An organization called the "Safety First Federation of America" with headquarters in New York City, arose from this movement. The scope of its work is boundless, and has in it a universal appeal. It issues warnings to school children to be careful in crossing busy thoroughfares and instructs them as to how to make the crossing. It cautions housekeepers not to allow an accumulation of sweepings and rubbish under the cellar stairs. It suggests measures of caution to heads of factories for the safeguarding of employees, and countless other things has it accomplished. Its simple motto, A. B. C. (Always Be Careful), adopted by railroad

[8] In 1913 in New York City, trolleys killed 108, and wagons 170 persons. The total of those killed by motors or injured to the extent that they required medical attention was 1485.

systems for trainmen and passengers, has probably been instrumental in saving thousands of lives.

Summary.—In all communities the importance of securing air, light, and a good food supply must be recognized, as well as the proper disposal of minor waste products. There are also certain nuisances affecting health to which attention should be given with the idea of bettering conditions.

Directly connected with comfort and safety are considerations of police and fire protection. The surest protection lies in the hands of the public itself. The Safety First Movement has done and is doing much to safeguard against the danger of negligence.

CHAPTER XII

CIVIC ART

THE term Civic Art has been a good deal misunderstood. It has suffered from those who have seen in it only the word "Art," and it has been regarded with suspicion by conservative persons to whose minds it has spelled only misspent effort.

The situation seems to be something like the following: Says the esthetic enthusiast, "Come, let us ornament every nook and corner of our town; above all things we must have beauty!" Says the person of opposite turn: "We do not want Civic Art; it is only for the millionaire suburb. Let us spend our money upon what is useful!" The truth is that each is wrongly minded in regard to what Civic Art really is, and how it should be applied.

A Definition of Civic Art.—A definition of architecture has sometimes been given as "Building what is necessary in as beautiful a way as possible." Likewise a definition of civic art might be given as "Making what is necessary in the com-

munity in as beautiful a way as possible." To quote from one good authority:[1]

Civic art is not a fad. It is not merely a bit of estheticism. . . . As an art which exists not for its own sake, but mainly for the good of the community, first for the doing of the thing and then for the way of doing it, there can be only one successful Civic Art. This will be one which joins utility with beauty. Cities are not made to be looked at but to be lived in; and if in the decoration of them there be any forgetfulness of that, no successful Civic Art will follow and the effort will defeat itself.

With this as a definition, let us consider the ways in which Civic Art may be applied to towns and cities.

The development of art in any country corresponds to the degree of its civilization. Retrogression in culture is marked by a decadence in art, as exhibited in the crude art of the Saxons after the departure of the Romans from English soil. "Art is the expression of order in human thought and feeling."[2] So Civic Art is the outward expression of an inner order in civil affairs. Given opportunity to be expressed in the aspect of the city, it exerts a direct influence for order in the

[1] *Modern Civic Art,* by C. M. Robinson, pp. 28-29.

[2] *The Theory of Pure Design,* by Dr. D. W. Ross, Harvard University.

minds of the citizens. In this fact lies the real justification of attention to Civic Art.

The Scope of Civic Art.—The products of Civic Art hold places in all parts of the city. There are of course varying degrees in which beauty may be applied to objects, depending upon their place and function. There are those in which beauty of line must form a very minor part of make up, and there are those whose chief function is adornment.

A sharp line of distinction between that which is useful and what is of pleasing appearance need not be drawn. The objects of civic art may lie in both groups, including things which have to do with the every-day equipment of the town and those of more than ordinary significance in civic beautification.

Civic Art is twofold in its scope. Not only does it have to do with the *creation* of objects, but it extends to *corrective* measures as well. Indeed a proper consideration of it demands that these corrective measures be the first considered. They form an important group. Corresponding to the nuisances affecting health there exist also nuisances affecting the *appearance* of the community. It will be our aim first to consider the corrective measures of Civic Art and thereafter its created products.

Billboards and Advertisements.—In the matter of signs and billboards, the town has a serious problem confronting it because the offense is so general.

It is doubtful whether any other vice of town ugliness is so widespread, and whether greater improvement can be secured in any other way for the amount of energy expended. The case against the billboard is well summed up as follows:[3]

"Nearly all people endeavor according to their lights to protect their homes against ugliness within. In proportion as the community is more numerous than a household it is important to protect it, as far as possible, against ugliness without, in its streets and public places. We are now, to a greater or less extent, protected against things that offend all the senses excepting that of sight alone; yet this is in many respects more important than the others, for ugliness is an offense against the mind, and has a subtle, but very important effect on popular education and happiness. Billboards, made in no sense for public, but entirely for private gain, are thrust upon the view of as large a part of the public as possible, and are perhaps less necessary, less justifiable and more easily mitigated or suppressed altogether than any of the things that disfigure our open spaces. As time goes on it will become clear that private persons have no right to inflict what they please on the vision of the community, nor to expect the community to endure it. As billboards are made to exploit the public it is no more than just that at least they should be taxed for public advantage and that their appearance should be regulated by public officials."

[3] Quoted from a report of *Proposed Policies of the American Society of Landscape Architects,* February, 1916.

The status of the billboard question is thus mentioned by the same source:

"Out-of-door advertising is regulated and taxed in Germany, France, and Buenos Ayres, and it is taxed in Rio de Janeiro.

"In Pennsylvania the Acts of June 8, 1881, and March 10, 1903, forbid under penalty of fine or imprisonment the placing of advertising signs on State property or on private property without the owners' consent.

"In Milwaukee an ordinance exists regulating billboards on grounds of safety from fire and falling, and forbidding advertisements on public streets or structures.

"Ordinances regulating billboards have been sustained in Texas and Missouri.

"Under a decision in the case of Commonwealth vs. Boston Advertising Co., 188 Mass. 348, billboards could not be restricted on grounds of unsightliness.

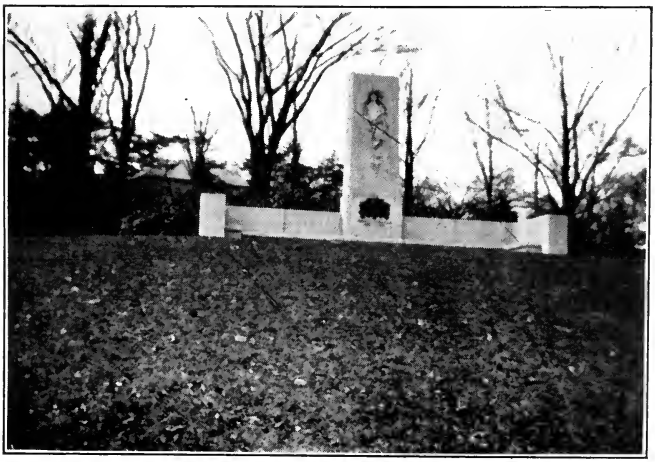
"Billboards can be controlled by existing legislation principally on grounds of trespass and danger from fire or falling, also of advertising alcoholic drinks or inciting to vice and crime. But the only way of reaching the real causes of their unpopularity will be through constitutional amendments *enabling them to be regulated under the police power* on the ground of injury to amenity or pleasing quality, comfort and livableness of a place and consequently to its real estate value."

In foreign cities, largely through the influence of societies of artists, the public advertisement has a good deal more artistic merit than that commonly seen in our country. But for our encouragement it can be said that our advertisement as a type is gradually assuming a quality which is less of a shout and more of an appeal, through artistic, studied line, and harmonious color.

Shop Signs.—Signs displayed above shop and store fronts do much to render the effect of good architecture nil. Wise regulation would be to insist that the size and appearance of firm names placed upon store buildings be given a character compatible with the architectural lines of the building upon which they are shown. We should be allowed the privilege of seeing the building before we see the sign.

In the matter of hanging signs displayed over sidewalks, the city has a field for a vigorous campaign. St. Louis has ruled that no sign shall swing further than three feet from a building. The effect is distinctly helpful to the whole appearance of the downtown portion of the city and, in the present stage of improvement legislation in this line, individual. In order to help the appearance of openness and width in the street, and in part for greater safety, some cities rule that signs projecting over the sidewalk shall be swung back against the building during the day. The illuminated electric

A GOOD METHOD OF HANDLING POLES AND WIRES
By stringing them on poles along rear property lines, the appearance of the street is greatly benefited.



A MONUMENT BEAUTIFUL IN APPEARANCE AND SETTING
The Francis Parkman monument in one of Boston's Parks.

sign over the sidewalk and even roof electric signs have at night a gay quality which one beholds with some pleasure, as suggestive of the gayety of cities. However, the roof sign, in the effort to captivate the attention with chariot races, and incandescent eagles with moving wings, often cause us to wonder to what realm municipal dignity has departed. The electric roof sign by night and day offends much oftener than it pleases.

Overhead Wires and Poles.—So common has been the practice of disfiguring streets with wires and poles that few citizens have stopped to consider that such a procedure is a violation of public right by private interest. That the telegraph and telephone are necessities of modern existence is not to be denied, but that telephone and telegraph companies, which are privately incorporated companies, have a right to clutter public thoroughfares with poles and wires, disfiguring the town's appearance and even menacing life and property in time of storm, is not to be granted. And such flagrant violation of public right as cutting off the tops of whole avenues of trees to allow the passage of wires and telephone lines along residential thoroughfares, from which they by rights should be excluded, is one of those cases which needs only united effort to prevent.

Poles and wires should be kept from streets of the business section and residential districts; setting

poles in the rear of lots along property lines is a method which is just as cheap as putting them on the street and one which results in the improved appearance of the sections concerned. Where poles seem immutable to protest as often in the case of trolley poles and electric lights, painting them an inconspicuous shade of green and planting vines at their base, will go far toward taking away their ugly appearance.[4]

Other Things Calling for Correction.—Smoke works harm to the architectural appearance as well as the health of the town. A suppression of smoke would make for better appearance.

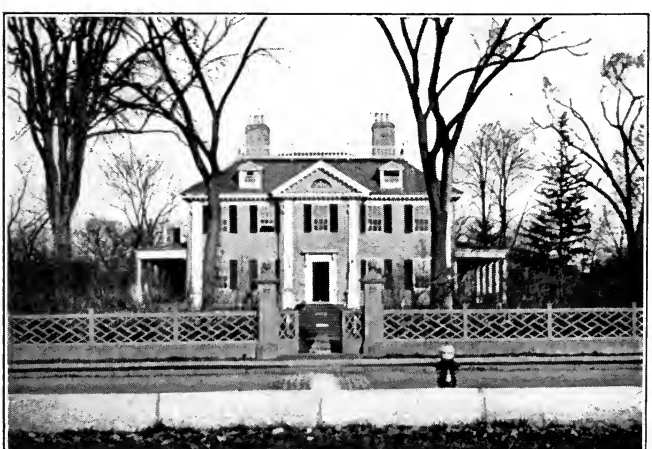
Needlessly dusty streets, dirty sidewalks, and the uncontrolled growth of weeds during summer months on public and private property, are matters in which both towns and citizens are frequently offenders. Dead trees, shabby fences, and dilapidated parts of dwellings are objects which neighborhood pride usually keeps in abeyance, but occasionally even these are found lowering the standard of appearance of well-kept neighboring property.

The Adornment of the Utilitarian.—Countless are the ways in which the adornment of the utilitarian may be accomplished. In the best architecture about us, we see that good building is something more than the erecting of a shelter from the weather. To logical building is added arch-

[4] Cf. p. 172, par. 1.

BRIDGES OF STEEL NEED NOT BE UGLY

A bridge that is strong, durable, and beautiful in Mill Creek Park, Youngstown, Ohio.



A HANDSOME HISTORIC LANDMARK

The well-known Longfellow House, Cambridge, Mass. Its history goes back to Revolutionary Days.

tectural style with its manifold accompaniments of fitting ornament and carefully studied proportion. The building whether it be a freight house or state capitol must first meet the demands of use and thereafter gain what it can of beauty.

In the bridges of the town, Civic Art has one of its greatest opportunities.[5] Modern steel and iron bridges lack much of the naïve picturesqueness which bridges of masonry possess; but even in the steel bridge, Civic Art need not despair, beauty is obtainable in girders of steel and in the lacework of small parts each fitting rhythmically into the whole.

In public park creation and adornment, and in the dignifying and embellishment of street furnishings,[6] Civic Art has also an important field of activity, a field so obvious, so general, and of such possibilities that the movement for making beautiful the things of use may well find its beginning here.

Because there is a difference between mere adornment and beauty, care is needed in the choice of ornamental features for the town, such as street lamp standards, street signs, and the like, that good proportion of parts and beauty of line should be

[5] Cf. p. 74, par. 2.

[6] For consideration of Street Furnishings, Street Lighting, Street Names, Signs, etc., see Chap. X.

secured. Here trained taste must dictate what is good and what is not.[7]

Monuments and Statues.—It has been said that the proportion of bad monuments to good ones in our towns and cities is probably at least ten to one.[8] Many a town's center is marred by an unworthy monument at that point, and oftentimes too, a fine statue is marred by its setting. Like any architectural form, the style and character of the monument or statue should be in harmony with its surroundings, and these should make for it a proper setting. Occasionally a statue designed to hold a prominent and dignified position in the town, ends by being ridiculous, merely because it is out of keeping with its surroundings. It is difficult for a figure to appear monumental and statuesque in modern attire. Moreover the average of physical appearance is apt to fall short of the ideal. The pose of the figure should, if possible, tell the story of the services of the individual. The statue itself may not be suited to certain surroundings, as for example, an Indian of the plains placed at the intersection of busy streets near the heart of the town.[9] It is because the statue of the individual has to pass so many requirements that the bust portrait is apt

[7] Vid. p. 158, par. 2, *Guiding and Fostering Public Taste.*

[8] Mrs. S. Van Rensselaer, *Art Out of Doors,* p. 207.

[9] Cf. The Function and Placing of Sculpture, Chap. XIII, *Improvement of Towns and Cities,* by C. M. Robinson.

to be found to be more successful for a public position.

Sculpture, like other forms of art, is to be thought of as conventional—as symbolic. It ought not to aim at deceiving us into thinking that the product is reality—that the sculptured orator is about to speak. Once we are surprised by an attempt at reality, straightway we are disgusted at the deception. Just here is shown the necessity of a pedestal or architectural base for all forms of sculpture, to remind us of the fact that we are dealing with symbolism.

The Location of Public Buildings.[10]—Oftentimes of the gravest importance to the town is the question of locating or placing a public structure such as a new high school, an art gallery, a public auditorium and so forth. This is not a slight matter, for once a building is planted it is there to stay indefinitely.

Grade schools are located according to district need. High schools draw from a larger radius. Art galleries and libraries demand positions which are accessible to all and still if possible away from the noise and dust incident to a central location. The use to be made of the structure will generally decide the question of location in a fairly sane manner, but at times, so many con-

[10] The Civic Center is Considered, par. 3, p. 154. Union Stations, par. 4, p. 62. School Houses, par. 1, p. 95.

siderations of private interest enter in that it is best to call in trained, unbiased professional advice—advice based upon the benefit to the whole community irrespective of local prejudice.[11]

Architecture in the Business Section.[12]—A lack of dignity and uniformity is evident in the appearance of the buildings which line the business streets in cities. This is more noticeable in the small town than in the metropolis, the reason being that in the large city there is more uniform progress in land development, while in the small town changes may not affect wide areas, having to do only with lots here and there sometimes for a long period of years.

What we see in the architecture of the average business district is a curious mixture of styles and conditions of building heights. We see many buildings which are obviously past their usefulness, like poor old cart horses, required to do work for which they are no longer fitted. A modernizing of buildings or at least of store fronts would serve to give greater harmony to the streets' appearance.

Because the skyscraper has risen in the metropolis, small towns have sought to advertise themselves as progressive by the building of tall buildings. Though one cannot deny that the skyscraper lays claim to grandeur of appearance, still it may

[11] The decision of an unbiased Art Jury might avail in such matters equally well. Cf. par. 3, p. 158.

[12] The subject of Architecture in the Residence Section is taken up in Chap. XV, p. 194.

THE WATERFRONT END OF A CITY STREET MAY STILL BE DIGNIFIED

The reason why San Francisco lends a good first and last impression to the traveler is easy to understand from this illustration.

A LONELY SKYSCRAPER

In small cities the tall office building is frequently built to advertise up-to-dateness rather than because it is needed.

prove an expensive ornament. Not only do tall buildings shut off light and air, but they serve to prevent the proper natural expansion of the business district.

Building Regulation.—The greed which prompts the owner to get every possible dollar out of his land has often resulted in the erection of cheap structures in the business and residential sections, structures which are not only far from beautiful but far from safe and healthful. Land values have been lowered unduly and unfairly by the establishment of undesirable classes of buildings, as where public garages and minor industrial establishments are erected in the midst of a business section, or where shops creep into a residence district.[13]

Some building regulation is necessary in all communities. It is enacted for two main purposes, first to enforce certain building regulations and restrictions, and second, to regulate the distribution and use of various classes of structures on the city plan.

Restrictions as to the character of structures which may remain or be built, result in clearing out undesirable classes of buildings, building for greater comfort and safety, regulating the proportion of building to lot area, limiting the height of the aspiring skyscraper, and in insuring greater stability of land values in all parts of the city.

[13] Cf. gradual retreat of residential section before growth of retail business mentioned, par. 3, p. 16.

Regulation as to the territorial extent of certain classes of structures come under the head of "zoning" or "districting," a system which promises to bring about great change for the better in our American cities where it is being carried out. Under it the city is divided into districts or zones each set apart for certain general classes of structures. The system does not usually limit any zone strictly to one class of structures, but it does act to keep undesirable structures from the restricted districts.

Local ordinances which regulate the handling of private property, of course depend upon the provisions and powers of each community as set forth in the state constitution. Our American cities have not nearly as much leeway in such matters as foreign cities whose charters frequently allow them almost unlimited powers in the regulation of their own affairs. With the dawn of home rule in our own country and the gradual establishment of city planning legislation, much more may be looked for in the future in the matter of building regulation.

The Civic Center.—In intimate connection with the subject of Civic Art is the subject of the Civic Center.[14] The World's Fair at Chicago in 1893,

[14] A definition of the Civic Center might be given as a grouping together of the administrative or other public buildings, with the aim of attaining thereby, the utmost efficiency in the transaction of the public business, together with the maximum of beauty in architectural effect.

was perhaps the most important event leading people in various parts of the country to an appreciation of the impressiveness produced by buildings grouped in one extensive architectural scheme. The economy of space there exemplified, the unity of the building groups striking the mind with a singleness of impression, had the effect of leading men to consider anew the possibilities of the grouping of public buildings within the city.

In past years so much emphasis has been laid upon the building of elaborate civic centers in connection with city planning schemes, as to bring about a general belief that in the establishment of a civic center, lay the sum total of town improvement. The civic center in its place is heartily to be approved of, but "It is enough to point out that of real city planning, the civic center is a by-product, not the whole thing, as its spectacular appeal once led people to believe. It is the flower, significant, as are various others, of the health of the plant of civic spirit—of its maturity into beauty." [15]

As a place, a focal point of community life, the civic center of the modern city finds its parallel in the civilization of former days; the temple place of the Hebrews, the "Agora" of the Greeks, the Forum of the Romans, were each similar in their significance. In later times we discover a similar

[15] Cf. *City Planning,* by C. M. Robinson, p. 302.

though somewhat modified center of communal life in the market place lying in the shelter of the cathedral or the town hall of the medieval city. Later we see its partial development in the central square of more prosaic modern times.

The Function, Form and Position of a Civic Center.—Considering the civic center as a place of governmental activity where, through the convenient grouping of public structures, public business may be transacted with the least possible loss of time, we come upon a point of distinction between the civic center in its true sense and the town common or village green of many modern American towns. The latter makes for quiet openness, quite opposite in character to the civic center.[16]

The town or city's civic center may take on a number of forms compatible with the life and the aspirations of the community. Because civic centers have been planned which cost ten million dollars, is no cause for a town's feeling that it dare not plan for a civic center. It may be quite simple, it may consist merely in a street junction dignified by the location of public buildings, which tell as a unit through their architectural harmony.

Government activity is one thing and private business activity another. The best position for the civic center then would seem to be near but just apart from the center of retail business. The exist-

[16] Cf. *Civic Improvement,* by F. A. Waugh.

ence of the civic center midway along a prominent business street may cut into the business section, preventing the natural extension of business in this or that direction. "Business abhors a vacuum." For this reason the position of the civic center should be studied with care.

A word of caution is to be given as to the creation of civic centers for towns. Extravagant expenditure costing millions to the city, when the slums of that city are still in unspeakable condition, is to be guarded against, as inconsistent improvement, and as directly contrary to the true spirit of civic art. The case, when this is done, is parallel to that of the laborer who spent all his wages for a set of china dishes and found that he had no money left for the family's steak.

Perhaps more than any other one of the products of civic art, a well-planned and well-created civic center, makes for the creation of civic spirit. When manifest in stone, the city's centralized life becomes more real in the mind of the citizen. He cannot but feel that law, government, and order, are actual and not imagined entities, and that he has in it all a part proprietorship. For its influence in this direction, the civic center has without doubt a reason for being.

The Preservation of Historic Landmarks.—So modernized have some of us become that we view with contempt what is old. No better way of

keeping the individuality of an all to *un*individual town is to be found than by keeping what is architecturally worthy and what has historic interest. Some landmarks must perhaps give way to modern structures, when the area they occupy becomes of great value; but too often no heed is taken as to the contribution historic sites and structures make in adding beauty and interest to the town.

Guiding and Fostering Public Taste.—The responsibility of making choice of the ornamental features of the city is a serious one. The person or persons in whom power of choice in such matters is vested, owe much to the community. It is not proper for an individual or group altogether untrained in the principles of proportion and beauty to say, "We will choose this to ornament our city, our decision is as good as the next man's." Yet often this is done. It is but simple fact that the best opinion in lines of art is based, like the physician's opinion, upon training.

The inference would be that in matters of selection where ornamental qualities are concerned, the choice should be put into the hands of persons whose taste may be relied upon, not left to one whose public office alone gives him power to make the choice. A plan recommendable for towns and cities is that established in Philadelphia in 1911 of having an Art Jury, whose function and aims are thus described in its First Annual Report:

"As provided by law, the approval of the jury is required before any work of art may become the property of the city by purchase, gift or otherwise, and this approval covers the location of the work of art as well as the work itself. The jury can be of greater service to the city, however, if the designs for all public and semi-public structures, such as buildings, bridges, steel fixtures and plans for public grounds, parks, parkways and playgrounds, are also submitted to it by the several Departments of the City Government, and it is a pleasure to report that hearty coöperation has been promised by all branches of your (the mayor's) administration in these respects."

By the terms of the Act creating it, the members of the Jury serve without compensation, excepting the Chief Clerk who serves at a fixed salary.[17]

Public taste may be further guided by direct educational methods. Nearly every citizen can be interested in the idea of a better appearing community. Organized public lecture courses, or the distribution of information by local organizations

[17] Mr. Andrew Wright Crawford, a lawyer of Philadelphia, has most ably served the Jury in this capacity for a number of years. It is interesting to note that in many instances, substantial reductions in cost have resulted from carrying out the Jury's recommendations. During the period of its first three months of organization, $41,000 was the estimated saving to the city in this way, an amount far exceeding the City's appropriation of $9,000 for the Jury's expenses. Vid. First Annual Report Art Jury, Philadelphia, 1911.

will do a great deal to elevate the standard of public taste.

Summary.—Civic Art in its broadest sense means the whole art of city building. As applied to particular parts of the city it may be defined as making what is necessary in as beautiful a way as possible. Among the products of Civic Art there are those objects whose purpose is primarily utilitarian and those whose chief function is educational. Civic Art's scope consists in correcting that which destroys the community's good appearance, and in raising in its place the thing of use and beauty. Certain corrective measures of Civic Art also are important.

Local authorities and individuals are not always capable of making decisions in matters of Civic Art. An art jury for towns and cities is to be recommended, in whose hands may be placed the acceptance or rejection of designs for features which must later hold prominent positions in the town.

CHAPTER XIII

THE EQUIPMENT AND FURNISHINGS OF THE STREET

THE street is so bound up with our lives and experiences as to become a kind of personality. Consider for a moment the varying ideas which it brings to mind, on the one hand quiet residences, homes; on the other, business, hurrying crowds, amusements. The term suggests at once the light hearted, the earnest minded, and the unfortunate.

From the streets' appearance is largely formed our impression of a town. This is natural, since the streets are the most conspicuous objects that meet the eye as we move from place to place. Intentions may be the best, but it is from evidence of the streets' appearance that we form much of our estimate of any community.

By street equipment we mean whatever is placed on the street, contributing to its use.[1] These features contribute an important part to the street's

[1] The subject of street cross sections and street trees are elsewhere considered; vid. Street Width, Chap. IV; Street Planting, Chap. XIV.

efficiency and to its appearance. A street system may be ideal, but unless fitted with serviceable pavements, proper lighting, and other needful furnishings the street cannot fulfill its purpose.

Street Pavements.—Wherever roads or streets are extensively traveled over, a certain amount of constructive work upon them is necessary to render the natural surface less destructible by the elements, and by the traffic which passes over them. This artificial surface, called the street pavement, is made of various materials, those most commonly used, are the following:

1. Stone—{ Cobble. / Block.
2. Wood—Block.
3. Brick.
4. Asphalt—{ Sheet. / Block.
5. Cement Concrete.
6. Bituminous materials (other than block or sheet asphalt).

Besides being the least attractive feature of the street, the pavement is by far the most expensive. Right here are good arguments against too wide roadways.

Various kinds of pavement serve various conditions; for example, a wood block pavement may be the best one for part of the down town district,

while a brick pavement will be best for another part. Similarly in this part of the residential section an asphalt pavement may be best, and in that a bituminous macadam, depending on the character of the neighborhood and the traffic to which it is to be subjected.

An ideal pavement[2] for any part of town is one of which it can be said that it is durable, reasonably noiseless, smooth but not slippery, of low first cost (comparative), non-productive of dust and mud, easy to keep clean, and easy and economical to repair.

The qualities of various pavements may be spoken of in a comparative way as follows, though the summary is intended to be only a general one:

Cobble Stone.—Of low first cost, its single merit; stones do not hold in place well, the surface is therefore hard to keep in good condition; noisy under iron wheels, rough, hard to keep clean.

Stone Block.—Durable, blocks wear round on edges, and pavement apt to become slippery; blocks easily displaced, apt to become rough; noisy and hard to keep clean.

Wood Block.—Noiseless; soft for horses feet; smooth, slippery; absorbs noxious liquids; not durable

[2] In preparing these statements much has been drawn from *Roads and Pavements,* by I. O. Baker, pp. 445 to 566, and *Elements of Highway Engineering,* by A. H. Blanchard, various pages.

for heavy traffic; expensive, light; good for bridge paving and the retail districts of cities.

Sheet Asphalt.—Smooth, of easy traction; comparatively noiseless, dustless, easy to keep clean, non-absorbent, resilient; requires expert labor to lay and to repair; small uneven spaces or cracks wear rapidly into bad spots; generally considered too smooth for steep grades; affected by water and heat; expensive.

Block Asphalt.—Less slippery than above; can be used on steeper grades; can be laid and repaired without expert labor; not apt to show long cracks owing to joints; however, blocks often crack; needs less repair than sheet asphalt, owing to thicker surface; not as easy to clean; first cost comparatively high; edges of blocks chip off, wear rough; somewhat more noisy under wheels than sheet asphalt; joints absorb liquids.

Cement Concrete.—Smooth, dustless; not slippery; very durable if well laid; easy to clean; not difficult to repair; fairly expensive; apt to crack unless base well made and drainage good; hard on horses' feet; reflects heat.

Brick.—Can be laid in small units of uniform size; obtainable in small or large quantities; does not require expert labor to lay; rapidly laid; easily taken up and relaid; does not wear slippery; good for all grades, as special brick can be used on steep slopes; comparatively noiseless; dustless; easy to clean; durable; non-resilient; reflects heat; hard on horses' feet.

Bituminous Macadam and Bituminous Concrete.—Free from dust; useful especially in residence, park,

and rural districts; of comparatively low first cost; noiseless; good sanitary qualities; not as durable as certain other pavements for heavy traffic; not slippery if proper coats applied to surface.

There is, of course, no such thing as an indestructible pavement. In the making of any one attention must be given to seeing that the subgrade is well drained, and that the final surface is to rest upon an even and solid foundation. Small irregularities or cracks from settling soon wear into bad spots with the continuous pounding of wheels. Nowhere—to use a rather badly mixed metaphor—does a stitch in time save nine as truly as in the repair of a street pavement.

Gutters, Curbs, and Other Features, at the Pavement's Edge.—In early times in streets, and still in the case of some alleys, the drainage has been made toward the center. The modern street drains to the gutter at each side.

The gutter must be impervious to water, and for this reason is often of different material than the road itself. For residence sections and park drives, grass or cobblestone gutters without curb may be used, though there is in this the danger that traffic will not observe the boundary and cut into the grass, and the disadvantage that it is difficult to keep the line of turf from growing ragged at the edge.

Stone or concrete are the usual materials for curbs. Curbs and gutters of the latter material require a cinder foundation to keep them at their original level. Curbs should be at least four inches high to take care of the water that at times flows in the gutter. Six inches is the ordinary height. Nine or ten inches would be the maximum without additional steps being made at crossings.

Stone block and cobblestone curbs are sometimes used on residential streets and park roads. Wooden planks for curbs are always to be considered a temporary expedient.

The most common radius for corner curbs is four feet. A larger radius, however, will be found to aid traffic in turning the corner. In residence sections a large turn results, too, in an improvement in the appearance of the street.

The form of inlets and of gutter crossings used in street varies greatly. Inlets should be both frequent and large enough to allow for the free inflow of water. Screening is often practiced to prevent large material from entering. Catch basins, it is needful to add, need regular cleaning, as a large amount of refuse enters them from the street.

When iron gutter crossings are used they should be such that they will stay in place. Bad accidents from this source are quite common.

Side and Center Parkings.—From four to eleven

A DANGEROUS CONDITION AT A GUTTER CROSSING
The need for improvement extends further, as seen by the condition of the gutter.

SIDEWALK AND ROADWAY AT DIFFERENT LEVELS
Occasional handling in this way lessens engineering problems, saves expense in construction, and often contributes to the interesting appearance of a street.

feet is about the range of width for a side parking! Less than four gives a space too cramped for tree development. The propriety of having a grass parking along the street's curb line as well as the form and amount of this turf depends upon the character of the street. In downtown sections street space is precious and the whole distance between curb and property line is properly claimed by sidewalk. In residence sections the presence of parking is amply justified by the added beauty which it gives. On parkways and boulevards a center strip or parking is often used serving the double purpose of giving a park-like aspect to the street and serving to separate traffic flowing in each direction.

General suggestions in regard to the width of center parkings for streets would be that the center grass strip should be equal to or slightly greater than that of each roadway at the side. Anything under the proportion given appears meager when constructed. This would set the minimum width for a center parking at from twelve to fifteen feet.[3]

The matter of giving the turf in the center uniform care is important to the street's appearance. To this end it would be well to have the city undertake the care of grass in all center parkings rather than trust it to abutting residents.

[3] Suggestions as to planting center and side parkings are made in Chap. X, p. 189.

Sidewalks.—Sidewalks must be sufficiently wide and level to accommodate foot traffic comfortably.[4] The material of which sidewalks are made is comparatively limited. Plank, and brick walks have given place to stone or cement, because the latter are found to be far dryer, smoother and generally more efficient.

Where the sidewalk is crossed by drive entrance the walk at this point should be given greater thickness to protect the walk against breakage. When the walk is next the curb or but a few feet from it, the drive entrance should be made in a way to prevent a depression or sudden incline in the walk's surface. Evenness of surface on sidewalks is essential to safety as well as to comfort.

Street Lighting.—We rightly insist to-day on well-lighted streets, even in suburban districts, though the cost of the undertaking of such lighting is a large item and its management a complicated problem. The days of torch and lantern carrying are over for the townsman. Street lighting serves two purposes: first, it insures safer travel to citizens and traffic, and second, it lends attractiveness to the town by night. In residence districts the amount of lighting required is that sufficient to insure safety, but not to give annoyance to residences from glare. In this respect the problem differs from that in the downtown district; for here, it is

[4] Cf. Chapter IV, p. 50, par. 2; Width of Sidewalks.

quite proper to have a flood of light illuminating building façades.

Street lights should illuminate without blinding the drivers of vehicles. An ideal system would have incandescent lamps in enclosed globes at the side of the street rather than hanging over the center. In general, the present tendency is toward small units placed frequently and relatively low. Cluster lights are giving place to single standards as being more effective and more economical for street illumination.[5]

A variety of lamp standards are seen in various communities. Unfortunately, not all of them are of a type worthy of their prominent position. A utility as much in evidence as street lamps should have a form that renders them ornamental by day as well as by night. They need appear neither elephantine, nor of a slenderness to suggest the cord by which circus balloons are kept captive. Good proportion, inconspicuousness, and grace are the qualities that should be sought.

Street Names and Signs.—Street names in most cities bear little relation to anything at all. They are like anagrams in a box, recognizable but meaning nothing. Can we not choose names for

[5] Detroit, Cleveland, and other cities tried placing powerful lamps on high masts but trees and buildings threw such dense shadows that the system proved impracticable. Article for paper, Prof. M. Brooks, U. of Ill. Proceedings of *Illinois Municipal League*, 1915, p. 19.

our streets which will have some significance? The record of a local or national event, even possibly a characteristic of the street itself, or a term recording the service which it performs. To do so would be to give life to something lifeless. While the naming of streets after letters and numbers is to be recommended only occasionally, this has at least the merit of unity and sequence. The most satisfactory system would be one in which the name of the street would immediately lead to a recognition of its position on plan for persons but partially familiar with the district.

Street name signs should be plainly in evidence. The stranger in a town is always grateful for the courtesy of being directed plainly by sign to the street which he desires.

The position given street signs should be uniform throughout the city, whether consisting of names in the sidewalk at the crossing, or borne on standards. Street names should be readable from any corner. Perhaps, after all, the most important recommendation in regard to these simple utilities is that they should not disfigure the streets.[6]

House Numbering.—The systems of house numbering in use are different in different places, but it is to be urged that the numbering of houses like the naming of streets be done so that the searcher

[6] Ref. A. H. Folwell, *Municipal Engineering Practice*, p. 284.

may estimate a locality when once the number becomes known to him.

The universal adoption within the town of number signs of similar appearance and the uniform placing of these on homes would be an aid in finding locations and would add a great deal to the appearance of the street.

Incidental Features.—There remain other features of street equipment which space permits little more than naming. Such would be drinking fountains, waiting stations, poles, rubbish receptacles, and so on.

Fountains of the bubble type are useful in the downtown district, provided they are kept in repair. Their position is best out of the way of traffic. Rubbish receptacles are a great aid, particularly near public open spaces, in keeping stray papers off the street.

Waiting stations for street cars are called for now and then in the downtown district where there is a convergence of street car lines. Of public comfort stations in the business district, our towns and cities are woefully lacking. The form of these, as that of street car waiting stations, should be inconspicuous, yet of neat architectural appearance.

The poles supporting trolley wires are features that seem to be necessary evils on certain streets. Their presence had best be rendered as unnoticeable

as possible.[7] Ornamentation of them is sometimes attempted. At times the wires are supported by brackets fastened into the fronts of buildings in the business district. Fire plugs and post boxes are utilities to which little attention is paid as to appearance, yet here, too, a choice may be made between what is ugly and what is in good taste.

Summary.—Though a street system may be ideal, its efficiency depends in a large degree upon its proper equipment. An examination of street equipment shows such important features as street pavements, curbs, and gutters, street lighting, street name signs, house numbering, and such other things. In all such equipment the aim should be for efficiency, economy in cost, proper placing and good appearance.

[7] Cf. Chapter XII, p. 147, par. 3.

CHAPTER XIV

STREET TREES AND OTHER STREET PLANTING

THE planting of trees in towns and cities is well nigh universal: even in arid regions some attempt is usually made to plant the streets, the need of it being instinctively felt. Indeed it would be hard for us to imagine a town as livable with treeless streets to-day.

Contrast of Ancient and Modern Cities.—If we were to be transported back to the ancient cities of the world, the first point of difference which would strike us would probably be the absence of trees on the streets. In walled-in cities space was precious, shops and residences intermingled, and trees, where they did exist, were to be seen only in a few public open spaces and in private grounds.

When, however, city walls were no longer a necessity, and new cities began to be built without them, the presence of trees on streets came to be recognized as a means of bringing the country into the city, not alone for esthetic, but for hygienic reasons as well.

Street Planting; a Neglected Science.—Though street planting is to-day so universal a part of town

making, it must be admitted that it is rarely carried out to the degree of perfection that it might be. As has been well stated:[1]

"Pavements, curbs, sidewalks, drainage and street lighting have been considered carefully, and expenditures for their provision have been made liberally, but the planting of shade trees along streets and roadways is a form of improvement that, while it is of incalculable value, has received comparatively little attention from a municipal standpoint."

That a tree is just a tree and that so long as trees are found here and there along the streets, in what condition it would seem not to matter, the town believes that its duty by its street trees has been done. It is the exception to find a street, much less a whole town, where street planting receives the full attention which it should; and this in the face of the fact that for the amount of money expended more effect of beauty and general livableness over the face of the town can be secured by street planting than in any other way.

Reasons for Street Tree Planting.—The arguments which might be advanced for street tree planting are *increased beauty* in the town's appearance and *increased healthfulness.* The simple presence of green trees in the city has a beneficial

[1] Bulletin, *Systematic Street Tree Planting,* p. 14, by H. R. Francis, University of Syracuse, N. Y.

AN IDEAL FORM FOR A YOUNG STREET TREE

Straight of stem, with compact head, and lower branches which can readily be trimmed as the tree matures.

SPARED IN THE PATH OF PROGRESS

Allowing a fine specimen of this kind to remain, and leading the roadway around it, is one way of adding interest and individuality to a residence tract.

effect upon the minds of all; the shelter which they offer from sun, wind, dust and even from sound are considerations which are not always seriously regarded. It is a well-known fact that the foliage of trees by absorbing carbonic acid gas and by giving off oxygen into the air helps to purify the atmosphere. From the health standpoint a statement made by the New York Medical Society is in itself a strong argument for street trees.

Resolved, That one of the most effective means for mitigating the intense heat of the summer months and diminishing the death-rate among children is the cultivation of an adequate number of trees in the street.[2]

The Requirements in Street Tree Planting.—If street tree planting is not done as well as it might be there must be definite reasons for this. Briefly, these reasons would seem to be (1) that the work is seldom under one person's supervision. It is done usually by each property holder on the street according to his own taste, and therefore is lacking in consistency and unity for any extended area; (2) that individuals and officials have seemed to lack knowledge of the science of street tree planting.

There is a good deal more to street planting than ordering a tree at random from a catalogue, dig-

[2] Resolution of the New York County Medical Society, *Shade Trees for Towns and Cities,* by Wm. Solataroff, p. 40.

ging a hole and sticking in the tree. Street planting bears careful study. A knowledge of several things is required. In order these are:

1. The proper choice of tree.
2. The proper placing of the tree.
3. The actual operation of planting.
4. The subsequent care of the street tree.

The Choice of the Street Tree.—The question is often asked, "What tree shall I select for a street tree?" When we come to understand how many considerations are to be weighed, we realize that the answer to this question is not an easy one. We shall perhaps understand why out of the fifty or more possible kinds of streets trees, the best trees for use are included in a short list of ten or twelve varieties. There are certain qualifications which a good street tree must possess. These qualities are:[3]

1. Hardiness.
2. Straightness and symmetry.
3. Comparative immunity from insect attack.
4. A proper amount of foliage.
5. Cleanliness.
6. Rapidity of growth.
7. Longevity.
8. A proper root system.

[3] *Shade Trees in Towns and Cities*, by Wm. Solataroff, p. 7.

The test which street trees have to pass is a severe one. One should add that a variety which grows well in one part of town may not do so well in another, owing to different conditions; for example, some trees which grow well in the residential section, as the elm, will not succeed as well near the heart of town. Let us consider the attributes mentioned.

Hardiness.—The street tree must be able to withstand conditions that would be unfavorable to ordinary tree growth—conditions of poor soil, drought, heat, dust, and the stress and strain of wind and ice storms. It must not be a delicate or particular tree, since at best it "must grow like a flower in a flower pot." The street tree should endure transplanting readily, be able to start quickly into growth after being moved, and finally should be of a kind that is easily propagated.

It is when we consider planting near the heart of the city, or in the thickly built sections that special attention to hardiness must be given. The oriental plane and the gingko, the linden and the hackberry, are among the best trees to plant when conditions are especially adverse.

Straightness and Symmetry.—The lines of street curb, roadway, and of sidewalk are things of more or less formal character. The planting along the street is most successful if it falls in with the formality of the street.[4] For our street tree we

[4] An exception can be made when trees of irregular habit

would choose a tree of somewhat symmetrical outline, one with a fairly straight trunk and regular head. The Norway maple and the pin oak come to mind as trees of this kind. Evergreens give us formal shape, but are never good as street trees because the spreading lower branches come to the ground, preventing a view beneath along the street from the sidewalk which would have the effect of seeming to narrow the appearance of the street.

A Reasonable Degree of Immunity from Insects and Disease.—While few trees are free from insect and disease pests, still some are much more so than others. Some trees act as inviting lodging places for parasites. For the street we want a tree which, though it may have a particular enemy, is not the object of attack of the whole bug kingdom. The hackberry, oak and gingko are trees of this character.

A Proper Amount of Shade.—The street tree should offer abundant, but not too much shade. Trees of open and sprawling character like our native sycamore are not ideal street trees. Its cousin the oriental sycamore is very satisfactory from this point of view. On the other hand, the horse chestnut is a tree which offers such dense shade that there is difficulty in earth and macadam roads drying off properly beneath. The American

are used in groups bordering a curved suburban street or lane.

elm offers ideal shade, with branches sufficiently high to insure opportunity for the growth of grass at the base.

Cleanliness.—Some trees have the bad habit of always dropping something. The Carolina poplar is in this class; its leaves begin to fall almost as soon as they mature. Some trees drop twigs; the catalpa, though it is an interesting tree, fairly litters the street with whiteness during blossoming time. The mulberry is an example of tree which is apt to stain the sidewalk with its fruit. The street tree should be cleanly and hold its foliage well throughout the summer.

Reasonable Rapidity of Growth.—The term "quick growing" is a relative one when it comes to making a choice of tree. Although rapidity of growth is desirable, it is not to be had at the expense of quality. Most of the quick growing trees are short lived. Too much is usually expected of trees at first. As a rule they grow slowly for the first two or three years after planting and should not be judged severely by what they do within this time; the elm is a very ungainly tree in its early stage, but later one of the most beautiful. Trees seem to be divided into three groups as regards growth—the very rapid or weedy growers such as the poplars, the medium growers such as the pin oak, maples and elms, and the slow growers such as the white and black oaks. It is from the

second class that most of our street trees will come.

Longevity.—It is desirable that the street tree should last for a long period—fifteen to twenty years is not long enough to provide for. The tree of proper choice will be but reaching maturity by that time. The real beauty of the elm is seen when it advances to a ripe age permitting it to arch over the roadway. By many the elm is called the ideal street tree. It is certainly well in the foremost rank, though in some localities, as in New England, it has been subject to terrific ravages from certain insect pests.

A Proper Root System.—Trees with a shallow root growth are liable to be blown over in storms. Other objections would be that grass is unable to grow well where roots are near the surface. Such trees are apt to be the first to show the effect of a cramped position. The Carolina poplar mentioned above has an aggravating root system. Its roots are so near the surface as to make grass growing difficult. Sprout growth, too, is frequent, and it has often been known to grow into small apertures in drains and eventually clog them with solid masses of rootlets.

Nursery grown stock is better for street planting than trees found in the woods. The reason is that trees grown in the nursery row are cultivated in a way to produce a compact root system, while the roots of those taken from the woods are likely to

have a sprawling habit. The compact roots of the nursery-grown tree enables it to grow quickly in the hole prepared.

The Placing of Street Trees.[5]—Street trees stand in what is commonly called the "side parking"—the space between sidewalk and curb. When this strip is less than four feet wide trees had best be omitted, as the limited space is apt to cramp the tree,[6] resulting in a dislocation of sidewalk, if not of the curb. Usually the tree should be set in the center of the parking as this position is most favorable for root development. An exception may be made in parkings of generous width and where, in a wide parking, it is desired to lay water and possibly other pipes inside the curb. When not placed in the center of the side parking, street trees should be placed nearer to the walk than the curb.[6]

The fault of setting trees too closely is one of the chief pitfalls in street tree planting. This results from the zealous desire of each property owner to have as many trees as possible in front of his house. Thirty to forty feet is about a proper distance apart for street trees. Trees should be set out with a regard to the street as a whole, rather than to individual lots, and with an

[5] Vid. Diagram VI, Street Tree Placing, p. 182.

[6] Vid. diagram illustrating Street Cross Sections, Chap IV, p. 51.

DIAGRAM VI.

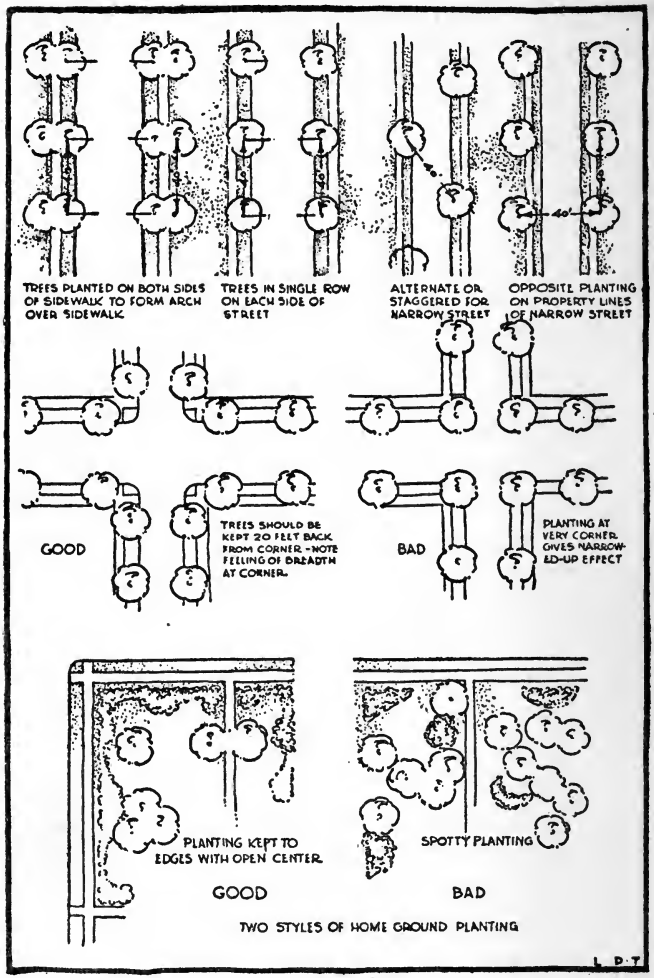


ILLUSTRATION SUGGESTING STREET TREE PLACING AND TWO TYPES OF HOME GROUND PLANTING.

aim of framing in each house as viewed from the street as far as can be done. Their size at maturity should be carefully thought of, giving them a spacing that will allow for an uncrowded development.

The average street has two rows of trees. The individual trees are best placed opposite one another on each side of the street in case there is as much as thirty-five feet between opposite standing trees. If less, they had better be placed alternately, which is a convenient arrangement on narrow streets.

The question of the placing of trees with reference to the corner is important. Exactly at the corner is a bad position in that (1) there is danger to traffic when the turn is hidden, and (2) it is desirable to obtain the maximum of dignity and breadth at each street intersection by keeping the trees a little way back from it. Twenty feet is about the right distance to place trees from the corner.

A beautiful vista effect may be obtained for the pedestrian by an arrangement of trees on private property corresponding with the row in the parking, thus making an archway over the sidewalk. Again, if the parkway be of sufficient width an alternately placed double row may be put in the planting strip. On streets with a wide center parking four rows of trees may be used with fine effect. In cases where the street is narrow, a line

of trees may be planted inside the property rather than in the parking.

The placing of trees in irregular groups, rather than in rows, may be properly attempted when the street is curved and like a country lane in character. An extremely pleasant effect may be so gained.

Planting Operations.—A municipal nursery, where the town may grow its own trees at a minimum cost for street planting, and from which it may quickly draw to replace specimens when needed, is recommended.

Top and root pruning of trees is important. All broken roots and branches should be cut off with a sharp knife to prevent decay at the point of breaking. Trees with a pointed growth, such as the pin oak, should not have their leader or top-most branch cut back. In all young trees, the side branches rather than the top should be trimmed.

The tree pit should be prepared with care to receive the tree. A hole about three to four feet in diameter and two and one-half feet deep will do very well for a young tree ten to twelve feet tall. As the earth is thrown out the top soil should be set aside, to be used in filling about the roots. All of the earth should be mixed with about one-fourth its own bulk and well-rotted barn-yard manure, which not only serves to furnish the tree with plant food but loosens up the soil and keeps it friable. In places where the soil is sandy,

several sods cut from the surface may be thrown into the bottom of the hole to conserve moisture; if the soil is clayey, three or four good-sized stones placed in the bottom will serve to insure drainage.

As to planting, it is a good plan first to set the tree in the tree pit a little lower than it is to be when finally filled in. As the filling is done, the tree should be jogged up and down which serves to compact the earth about the roots, and raises the tree to the position at which it formerly stood. Poking the earth in among the roots with a stick will go far towards bringing the roots in contact with the earth. No chance for air spaces should be left. Water may be run into the tree pit while filling is done, except where the ground is excessively clayey, then it should be avoided as it may seal up the roots as the ground dries out.

The Subsequent Care of Street Trees.—Not less important than the operations spoken of, is the care which the tree is to receive after planting. After planting little pruning is needed. If the proper kind of tree has been chosen the hacking off of limbs, except to repair damage, need seldom be done. It is a mistake to suppose that the process of "dehorning" should be carried on every season. Tree butchery is all too common, being practiced in most instances for no special purpose other than an unreasonable feeling that "something should be done." Low-hanging branches up to a height of

eight feet from the sidewalk should be removed in order not to interfere with the passersby.

Staking, and the placing of guards about the tree are ways of insuring it a good start. Iron gratings in the pavement are a means of furnishing the tree with air and moisture, if placed in the uncongenial surroundings of a concrete pavement. Short pieces of pipe or tile sunk at an angle from the surface of the ground to the roots is a help in watering.

Cultivation about the base of the young tree is to be recommended. A circle of turned up earth, free from grass, three to four feet in diameter, serves to protect the young tree trunk from injury from the lawn mower, and aids the tree growth by keeping moisture in the soil. In hot weather a mulch of grass cuttings may be placed over this open circle to prevent too rapid evaporation.

Numerous are the illnesses that street trees are heir to; leaky gas mains and insect pests are but a few of them. When such causes exist stringent methods are demanded to eliminate them as their continuation may be fatal to large numbers of trees. On the whole, a well-nourished tree is not as subject to insect attack as one which is not in good health.

Municipal Supervision of Street Trees.—The trees on the streets of the town are of sufficient importance in the life of the community to war-

rant that their care and management be made a regular part of local municipal administration. If the citizens can be brought to the state of mind where they will regard the street tree not as *private,* but as *public* property which it really is, an important step will have been made.

It is to be urged that the trees of a town be placed under the care of a tree warden, who shall choose, plant, and care for all of the trees of the city. The small town might find it possible to combine the duties of park superintendent and tree warden. Or again two or more communities might unite in the employment of a tree warden whose salary could thus be paid in part by each. His duties would include keeping a careful record of the condition of the trees on all streets. Whenever renewal or removal becomes necessary, the tree warden should have full power to act. Tree trimming and the cutting down of street trees should rest with him alone. Cities will find that street trees so cared for become each year an increasingly valuable asset to the community.

Other Planting on the Street.—There are other forms of planting which contribute to the appearance of the thoroughfare, if properly done.

Shrub planting on the public thoroughfare is, as a rule, to be undertaken cautiously. In the first place unless the width of the whole street is generous, groups of shrubbery in the side or center

LIST OF THE USES OF RELIABLE TREES[7]

1. In the business district. 2. For formal avenues within city. 3. For residence streets. 4. Parkways and boulevards.

Name.	Use.	Height.	Age.	Spacing.	Growth.	Troubles, Remedies, Remarks.
Ash, white. (Fraxinus americana)	3, 4	to 120 ft.	to 150 yrs.	40 ft.	Rapid	No serious enemies.
Elm, American. (Ulmus americana)	2, 3, 4	" 120 "	" 200 "	50 "	Medium	Elm leaf beetle mildew, brown-tail moth, gipsy moth, borer. Arsenate of lead.
Elm, European. (Ulmus campestris)	2, 3, 4,	" 100 "	" 200 "	40 "	Medium	More than above.
Ginkgo or Maidenhair. (Ginkgo biloba)	1, 2	" 100 "	" 100 "	30 "	Rapid	Entirely free. Will grow amid very adverse conditions.
Hackberry. (Celtis occidentalis)	1, 3, 4	" 100 "	" 200 "	30 "	Medium	Comparatively free.
Linden, European. (Tilia europæa)	1, 2, 3	" 100 "	" 150 "	35 "	Rapid	Plant lice, caterpillar. Arsenate of lead.
Maple, ash-leaved. (Acer negundo)	3, 4	" 70 "	" 90 "	35 "	Rapid	Caterpillar. Arsenate of lead.
Maple, Norway. (Acer platanoides)	2, 3, 4	" 80 "	" 100 "	40 "	Rapid	Tussock moth, Leopard moth. Best of maples for street.
Maple, sugar. (Acer saccharum)	3, 4	" 100 "	" 100 "	40 "	Medium	Tussock moth, Cottony maple scale. Arsenate of lead.
Oak, red. (Quercus rubra)	3,4	" 120 "	" 300 "	45 "	slow for two yrs.; thereafter rapid	Comparatively free. Leaf blisters.
Oak, pin. (Quercus palustris)	2, 3, 4	" 120 "	" 300 "	38 "	Slow for two yrs.; thereafter rapid	Comparatively free. One of best.
Oak, scarlet. (Quercus coccinea)	4	" 120 "	" 300 "	50 "	Medium	Comparatively free.
Oak, white. (Quercus alba)	4	" 120 "	" 300 "	50 "	Slow	Comparatively free.
Plane, Oriental. (Platanus orientalis)	1, 2, 3	" 80 "	" 150 "	45 "	Medium	Quite free. One of best street trees.
Tulip tree. (Liriodendron tulipifera)	4	" 130 "	" 100 "	50 "	Medium	Spot gall. Cannot transplant in fall.

[7] Table founded with some revisions upon a scheme similarly presented by T. Glenn Philips, Landscape Architect, of Detroit. Pamphlet *City Tree Planting*, Detroit City Plan and Improvement Commission, 1914.

parking have a tendency to make the street appear very much narrower; in the second, shrubbery, if carried up to the corners, is apt to endanger traffic by blocking the view at these points.

Shrub planting in the side parking, like the irregular grouping of streets trees, is as a rule most successful on suburban streets. It is not best to undertake such planting unless it can be carried out along the entire block's frontage, for unless so done, it appears isolated and forced. Low shrubs should be used where shrub planting is done along the street in order not to render perilous the crossing of the street at any point, particularly by children.

In planting the center parking the effect to be aimed at depends upon the generosity of the parking's width. When this is fairly narrow the aim should be to keep it from appearing any narrower than it is; better leave it as a simple grass panel than to narrow up the street's appearance. Usually it will be found feasible to plant shrubs or small ornamental trees toward the ends of each block-unit of center parking; leaving the intermediate space as open as possible. Even when the center plat is wide enough to permit of park-like planting within blocks, the best effects will invariably be obtained from that character of planting which brings out a restful stretch of unbroken turf toward the center.

The planting of the side strip with low growing flowers is a practice which prevails in some of the cities of the West. It would seem to have in it interesting possibilities for the beautification of streets, and particularly of narrow parkings. To be effective this should be done with uniformity throughout the street or block. There is no doubt but that it would add pleasant color to many of our all too drab cities.

An effective way in which flowers may be used as a street decoration is in window boxes in the business section and buildings which crowd near to the sidewalk line. Attaching flowering baskets to lamp standards and poles along the street appears a rather questionable method of street embellishment in that it is difficult to make flowers appear logically related to surroundings when elevated above a lamp standard or swinging above the gutter. Surmounting the former with flower baskets, no matter how well constructed, reminds one something of a stork's nest. What has been done in this way, however, deserves praise for sincere intention.

Summary.—Street tree planting is an important part of town improvement. It is a means of adding beauty to the town, and it has an important effect upon health. In general, street tree planting is a neglected part of municipal work, the responsibility being shifted between property owner and

city. Proper attention to the choice, placing, planting and subsequent care of the tree is essential to secure best results.

The trees of the community are of sufficient importance to warrant that their care should be under the supervision of a tree warden. A municipal nursery is to be recommended.

Other possible forms of street planting are shrub planting in the center or in the side parkings of the street. Shrub planting along the parking strip should be kept low in order not to narrow up the apparent width of the street and endanger traffic, particularly at the corners.

CHAPTER XV

AMONG THE HOMES

In listing the activities into which the town plan is divided it was noted that the largest percent of its area is residential.[1] By devoting attention to improvement among the homes, therefore, the effect upon the face of the town or city can readily be seen.

As water cannot rise above its own level, so town improvement cannot rise above the ideals of the majority of the citizens. Town improvement, like charity, may well begin at home and the home, which we take to mean the house plus its surroundings, is an important indicator of the state of the community.

The Housing of the People.—The thought has already been expressed that homes exist in practically all parts of the city. Like plants, clinging by necessity to whatever soil is offered, and there making what growth they can, so homes permeate even the concentrated business section.

[1] Cf. Chap. II, p. 25.

The reasons which prompt to the acceptance of an abode in uncongenial often miserable and unhealthful surroundings, are not hard to discover; low rent, nearness to work, with a minimum of expense and of time in travel to and fro, a chance for frequent intercourse with one's own kind, and not least, the opportunity offered free of charge to enjoy the enlivening sights of the city. The overcrowding of population in some parts of our cities, has given rise to the *housing problem.* Specific reasons for its existence may be given as follows:[2]

"The housing problem is due to high land values on the one hand and inadequate transportation facilities on the other. . . . High land values are due to the demand for land. This in turn involves the intensive use of land by the owner in order to secure a commercial return on the investment. This means high buildings, high rents, and congestion."

The housing problem may be said to be the large city's problem.[3] The growing smaller community,

[2] *The Modern City and Its Problems,* by F. C. Howe, p. 276.

[3] Fearful congestion in living conditions in some of the larger cities in our country has arisen as a result of poor housing. In New York twenty families or more are crowded upon the spot where a generation ago one family lived. According to the Tenement House Commission of New York City, the most congested block in that city is occupied by four thousand five hundred and fifty-six persons, or an average of one thousand persons to the acre. Bad as are the conditions here described, probably the worst country wide housing conditions found have been those of England and Germany.

however, should give thought to making conditions such that no serious housing problem will ever arise.

Solving the Housing Problem.—Much has been done to regulate building construction, supplying light and air in needed amount, and giving privacy to separate families and members of families, and thus to obviate immediately malignant living conditions, but regulation does not wholly relieve congestion, nor reduce rents. The most obvious course open would therefore seem to be a policy which will, by a reduction of taxes upon newer houses and improvements, and an increase in rapid, cheap, and adequate transportation service, make it possible for citizens to live in less congested outlying districts at the same offered rental, and without material loss of time in travel to and from work.

In our own country, and particularly abroad, in late years, a good deal has been accomplished in the way of establishing model tenements and creating industrial communities toward the edge of town, where for a small rent, and amid refining suburban surroundings, the benefits of an uncrowded existence can be had for the workman living on fairly low wage. These efforts promise much for the solution of the problem.

Residential Architecture.—The incongruous mixture of architectural styles presented in a single block in the average American town would prove a source of amusement to us were we not so accus-

MODERATE PRICED—BUT A BEAUTIFUL LITTLE HOME.
No vacant months in this landlord's list.

A SUCCESSFUL ATTEMPT AT MAKING A THREE-FAMILY HOUSE ATTRACTIVE
Houses in Cleveland, Ohio.

tomed to it. Town growth has been so irregular that the good taste, and the harmony which characterizes residential architecture in the older parts of the country, has been almost entirely lost sight of.

On our residential streets we see ostentation running riot and individual whim unbridled. The democracy of our institutions is reflected in the architecture of our towns and cities, which seems to be created upon an enforcement of the principle that all men are created equal in the right to build as atrociously and illogically as they please. Universal regulation in house architecture, it must be admitted, is more than can be expected. In restricted residential tracts which have been put upon the market by a single company, regulations are often put upon the homes to be built with an aim of producing a general harmony of building types on various streets. The fact that tracts where such supervision is exercised are often the show places of town, is an instance of the possibilities of bringing residential architecture under regulation compatible with a reasonable amount of individual freedom of expression.

House Planning and Location.—In planning a house the general interior arrangement should be the first consideration. The choice of style is a matter of taste. It is a wrong way to plan to consider first the appearance or the façade, and there-

after plan the rooms to fit the outside. Our American domestic architecture is fortunately conforming more and more to the type of airy, well lighted interiors and fairly proportioned exteriors.

On the whole it would be wiser to plan our houses more for use and less for appearance alone. Any facing of the lot may be utilized. Our homes too often disregard this fact, and a stereotyped plan is followed. Kitchens near the front end, and living porches and living rooms at the back, if the best use of the property warrants, are arrangements that we may be perfectly right in having. Many town lots are such that the question of house location involves merely keeping the structure back a certain required distance from the street. Where the lot is of larger dimensions, where the ground surface rises or falls, and where conditions allow for a particular use of natural features, the placing of the house on the lot becomes a more diversified problem.

Planning the Home Grounds.—The activities which are carried on within the house—the receiving of guests, private enjoyment, and the duties of housekeeping, have their counterpart in the grounds about the house and suggest a logical method of arrangement. Following up this idea we may say that there are three main divisions or parts of the home grounds. These divisions are (1) the Public Portion—that part which the public sees; (2)

the Private Portion—created primarily for the enjoyment of the occupants and friends; and (3) the Service or the Working Portion.

The *Public Portion* comprises the *lawn* or *front yard.* This is properly looked upon as giving a setting to the house for the benefit of passers-by. Trees here are best arranged to frame in the house as viewed from the street. Groups of shrubs may be introduced at the intersection of walks and drives, and at lot corners, but these should not break up the continuity of the front lawn.

The *Private Portion* should be readily accessible from the living part of the house and so arranged that it may be freely used without undue exposure to the public eye. This is a usable part of the home grounds which few people appreciate; they think of the home grounds as comprised of front yard and laundry yard only. The private portion should be the most enjoyable part of all. It may be made up of a simple open area of turf, bordered by shrubs and flowers, or it may be an area planned as a garden.

The *Service Portion* embraces the kitchen or laundry yard and all other outdoor working parts, such as garage court, kitchen garden, etc. This is best screened off by lattice or planting from the public and private portions, and should be readily entered from kitchen or cellar and accessible by a path of its own from the street.

In planning out the home grounds the arrangement should be such that, though each part is separate and serves a distinct purpose, together they form a well organized whole.

Planting the Home Grounds.—In creating the divisions above mentioned the use of plant material will be found convenient, economical and attractive. Planting serves one of two purposes, either the utilitarian or esthetic. When we use plants for screening or for fruit, the purpose is utilitarian; when we plant a flower garden or place shrubs about the base of the house for the attractiveness of their appearance, the purpose is esthetic.[4] At times these purposes merge in the planting of the home grounds, but usually they are distinct.

In regard to the planting of shrubbery and trees on the home grounds it should be kept in mind that it is desirable to increase rather than diminish the apparent size of the lot. Therefore trees singly or in groups near the boundary will be better than groups or single specimens in the center of an open lawn. Native plants rather than those unusual in form and color are desirable. A few simple general rules will be of assistance:

1. Plant varieties in groups rather than singly for the sake of a mass effect.

[4] A practical point to keep in mind in connection with foundation planting, is not to plant high shrubs in front of cellar windows as this results in dark, damp, airless cellars. Very low plants may be used if any are thought necessary.

2. Preserve the largest lawn area possible by keeping planting toward the edges.
3. Conceal the boundaries where possible, for by so doing the imagination suggests greater extent.
4. Plant with an irregular, flowing edge, for naturalistic effect.

In regard to the planting of vines on porches, it will be far more effective to feature one vine on a veranda than to plant a mixture of three or four varieties as is commonly done.

What to Plant on the Home Grounds.—It is not necessary to have on a place every variety of plant that appears in the nursery catalogue; better effects can be obtained by using a few good varieties in considerable quantities.

The following lists will serve for a suggestion as to good varieties of plants for most sections:

TREES FOR SHADE AND LAWN

Norway Maple
Sugar Maple
American Elm
Box Elder
White Ash
Green Ash
Liquidambar
Oriental Plane or Sycamore
Horse-chestnut
American Linden
Mountain Ash
Pin Oak
Lombardy Poplar

TREES FOR SPECIAL ORNAMENTAL PURPOSES

Fringe Tree
Red Bud
English Hawthorn
Flowering Peach, Plum and Apple
Magnolia
Purple Beech
Dogwood, white and pink
Weeping Willow
Spruce
Fir
Arborvitæ
Cedar
Red flowering Horse-chestnut

ORNAMENTAL SHRUBS

Azalea
Japanese Barberry
Weigelia
Burning bush (Evonymus)
Golden Bell (Forsythia)
Dogwood—red and yellow branched
Deutzia
Elder
Spiræa—Thunberg's
Spiræa—Van Houtte's
Missouri Currant
Rose of Sharon
Hydrangea
Bush Honeysuckle
Mock Orange (Philadelphus)
Smoke Bush
Snowberry
Sumac
Indian Currant or Coral Berry
Lilacs
Viburnums
Roses
Rhododendrons

VINES

Woodbine
Clematis—Virgin's Bower
Clematis Jackmanii
Wistaria
Wild Grape
Morning Glory
Boston Ivy
Honeysuckle—Hall's Japanese
Bitter Sweet
Trumpet Creeper
English Ivy

HERBACEOUS PLANTS

Bleeding Heart
Columbines
Chrysanthemums
Coreopsis
Gas Plant
Gaillardia
Foxglove
Hollyhock
Iris
Larkspur
Lilies in variety
Oriental Poppies
Garden Phlox
Yucca
Peonies
Mallows
Sweet William
Golden Glow
Anemone
Veronica

ANNUAL FLOWERS

Sweet Pea
Cosmos
Nasturtium
Bachelor Buttons
Pansy
Asters
Four O'clocks
Zinnias
Candy Tuft

The Planting and Care of Plants.—Shrubs are planted in much the same way as described for trees, except that being smaller there is opportunity

for more distinct massing. It is best to turn over all of the earth in the shrub bed to a depth of at least a foot and mix it with manure before planting. In planting it is not best to resort to separate holes dug in the turf for each shrub, as this method makes lawn cutting difficult and encourages the spotty style of planting, where group planting would be preferable.

Shrubs are more often planted too closely than too far apart. Three to four feet is the proper distance apart to plant them. A good idea in planting, once the bed is prepared, is to place short stakes in the bed as a guide in determining where plants are to go. As holes are dug and planting progresses, each plant should be placed in the bottom at first a little deeper than the plant is finally to be, and as filling proceeds, the plant as with trees, should be jogged up and down in order to induce the earth to settle about the roots. Finally it is important that the earth should be heeled in firmly about the base of each plant.

Pruning is a necessary part of the planting operation. As the plant is transplanted its root system even with care is impaired by the loss of small fibrous roots. The pruning of the top is done in order to reduce the work required of this somewhat impaired root system. From one-fourth to one-third of the height of the shrubs should be cut off after setting. As a rule, subsequent to the first

cutting, the shrubs are far better off without further pruning except to remove dead or injured parts. If the ultimate size of the plants is carefully considered before planting, and their position chosen accordingly, there will be no need for further cutting, and no cause for complaint on account of excessive height and crowding over walks. Better no shrub at all than one cut to the point of disfigurement. The beauty of shrubbery is in its natural growth.

Watering and summer cultivation during the first season is a great aid to its growth; as it matures, it need have little care except in excessively dry weather.

Lawns.—In the making and care of a lawn most householders are lacking in knowledge. England possesses the finest lawns in the world. There is a saying there that "It takes fifty years to make a gentleman and one hundred years to make a turf!" Which serves at least to bring out the thought that a good lawn is something which it takes time to produce, and something which must be cared for—a result not of one season but of a number of years.

A good lawn requires that the best earth be saved for the final top layer, that it be raked free from stones, and carefully rolled after planting to press the seed into the soil. A good standard mixture of grass seed for average soil consists of the follow-

ing: 45% Kentucky Blue Grass, 45% Red Top, and 10% White Clover.

Spring is the best time to plant lawns, but it can be done at almost any time during the growing season provided that the hose is at hand to supply the young grass with frequent waterings. A lawn should be weeded carefully and rolled occasionally as it develops, and the mower should not be set to cut closer than about two inches at any time.

Community Planting.—Proper planting in the single lot is a source of inspiration to others but it by no means equals the beauty of effect which may be secured when all of the members in the block, or a certain portion of the community, determine upon and carry out this kind of improvement.

Besides uniform street tree planting, the planting of private property in the block may be done so that the whole block tells as a unit. Various plans may be followed. Hedges may be featured in the block, a single kind of hedge being used throughout; groups of planting may be placed at all front corners of lots and at walk and drive entrances or, again, where houses are somewhat near the street line, an effect of openness and width to the street picture may be secured by confining all planting to the vicinity of the foundations of the homes. Again, trees may be eliminated in front lawns with good effect when lawn spaces are

shallow, the trees of the street parking being depended upon for needed shade.

There need be no fear that coöperative planting will give a monotonous appearance. On the other hand it is sure to exhibit a grateful contrast to the restless scattered aspect usually seen, and to have added force because done by numbers of individuals.

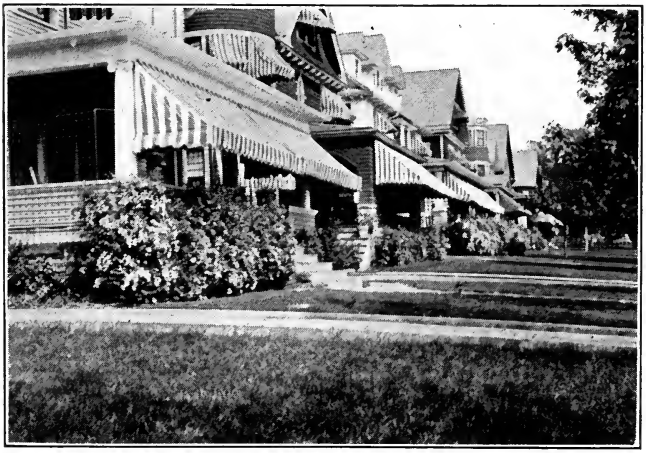
Clean Up and Paint Up.—Not often enough does the spring house-cleaning carried on within the house extend to other parts of the home establishment. The part of the lot unseen by the public is apt to be regarded as unworthy of attention, and in the unfortunate back yard and in the rear alley there gradually accumulates such a disorderly array of rubbish as even to interfere with the use of this important part.

There are few communities which would not benefit by a periodical clean up of private property. Some towns, awakening to the importance of the matter, have appointed clean-up and paint-up days on which rubbish of all kinds has been carted off at a prearranged time, and in its place, order, healthfulness, and more use and beauty secured.[5]

[5] Vid. p. 233, Survey Blank of Junior Sanitation League used at Decatur, Ill., in annual clean up campaign most ably organized and conducted by John F. Mattes, Commissioner of Health and Safety, City of Decatur.

AN AGGRAVATED CASE OF UNTIDINESS

"Show me your townsmen's backyards, and I will tell you what kind of citizens they are."



COMMUNITY PLANTING IN A CITY BLOCK

Though the lots are small, the street picture is a striking one.

The following is a suggested programme for a special clean up week:[6]

SUNDAY.—Special Sermons in all Churches.
MONDAY.—Fire Prevention Day. Clean your basements and attics of rubbish, greasy rags and waste paper.

TUESDAY.—Front Yard Day. Cut lawns, plant flower beds, clean walks and gutters. Salt cracks in sidewalks; exterminate ants. Business houses clean windows and replace old awnings.

WEDNESDAY.—Weed Day. Rid lawns of dandelions, trim bushes and gardens. Rid city of the weed pest.

THURSDAY.—Paint Day. Paint up inside and out: porches, fences, woodwork and porch chairs.

FRIDAY.—Back Yard Day. Clean alleys, repair fences and sheds, screen garbage cans. Put fly traps on garbage cans. Put on screen doors.

SATURDAY.—Vacant Lot Day. Children clean vacant lots, remove tin cans, papers, and brush.

This contains good suggestions. One cannot but feel that the household which followed the programme conscientiously would be well entitled to take advantage of a restful Sabbath on the following day.

[6] *How to Start a Clean Up and Paint Up Campaign,* booklet by National "Clean Up and Paint Up" Campaign Bureau, established 1912. Headquarters Kinloch Bldg., St. Louis.

Local organizations of business and professional men have frequently given special impetus to such effort. Sometimes these campaigns take the form of Garden Contests [7] when prizes are offered for the best kept premises.

In one of the paint-up campaigns in St. Louis a well known paint firm offered paint at cost to the firm for a certain period, which proved to be an effective way of popularizing the movement.

Town Extension.—As a town of normal life increases in population there results a steady movement toward the outskirts. While business concentrates at the center numbers of inhabitants move to newer dwellings at the edge of town to get the benefit of more space and fresher air.

Though new land must be developed in the outlying districts of every growing community, town authorities are not usually the ones primarily engaged in planning the new areas, though they should be. Real estate men and land development companies in most cases are the ones who are busy developing new outlying tracts, grading streets, making sidewalks, and planting trees on new subdivisions. Having to do with so important a matter as laying out the future portions of the town plan, it seems strange that private interests should be allowed so free a hand in a matter so vitally affecting

[7] Vid. reference to Davenport, Ia. City Beautiful Campaign, footnote, p. 225.

town welfare. As for the town, it is as though a man in need of a suit of clothes were forced to take any one handed to him by the proprietor of an emporium.

Newly laid out tracts should not only be livable, and equipped with all modern street conveniences, but streets should join on to the city plan so as to be a real and not a detached part of it. Communities should require that all plans for new allotments be approved by a competent local municipal authority [8] before they are allowed to be plotted as a part of the town plan. But more than acquiescence is needed. Municipal control of town growth is necessary. It is not too much to hope that before long such wise centralized control will be the rule in city and town growth.

The real estate operator has an exceptional opportunity of putting into practice the principles of town improvement. Nor is taking advantage of such an opportunity poor business since successful real estate developers agree that it pays them best to put on the market the most that can be offered to buyers in the way of improvement.

Summary.—The homes of the town's inhabitants

[8] E.g., Sect. 4346, passed by State Legislature of Ohio, provides that the director of public service shall also be the planning commissioner in the city, and that no plot of land within three miles of the corporate limits of a city shall be entitled to record in the recorder's office without his written endorsement and approval.

are indicative of the real condition of the community. The housing problem is one of the most vital questions in the life of the large city. The over crowded conditions are the result of a "land problem on the one hand and a transportation problem on the other." Though serious housing problems are not met with in the small community it behooves the small town to guard against conditions which make such conditions possible later on.

Residential architecture is open to suggestions for improvement. It is sometimes true that houses "are built rather to be looked at than to be lived in." The grounds form an important part of the home establishment, and therefore the principles of planning should be extended to them as well. The three main divisions of both house and the grounds about it are public portion, living portion, and service portion. The function of each part suggests something as to its planning and arrangement with reference to the whole.

A knowledge of the principles of planting is helpful in making the home grounds attractive. The idea of improvement extends also to cleaning up the usually unsightly and unusable parts of the home grounds.

It is of considerable importance that, since the town must constantly extend its limits, new tracts should be planned so as to be real and not detached parts of it.

CHAPTER XVI

PAYING FOR TOWN IMPROVEMENT

WHENEVER town improvement is contemplated, three mental processes take place in the mind, the first is a consideration of what is needed, which has to do with a survey of existing conditions; the second, a weighing of probable benefit, which has partly to do with bringing others to our point of view, and the third, the question of how to pay the bills, which concerns itself with business methods.

Improvement Through Private Gift.— A great many improvements have been bestowed as gifts, ranging from large tracts of land to bubble fountains at the corner. Amusing are some of the incidents of bequests which have the sole aim of letting the donor's good works be seen among men, and keeping his name always in sight. Contrasted with such are gifts which are modest in spirit, whose only thought is to do a good deed.

To consider one kind of gift, namely land offered by real estate companies for parks; since numbers of such offers are generous ones, it may sound un-

grateful to suggest that before such gifts are accepted, the motive of the donors be looked into. Occasionally land is so offered merely to release the owners from the expense of improving it, the owners realizing, however, that improvement is necessary for the sale of lots in their property.

The habit of expecting everything to come as a gift from some good fairy is as demoralizing to a city as to a citizen. Splendid gifts have been made by individuals it is true, but in the long run it is better for the town's self-respect that gifts be an occasional rather than a general occurrence.

Improvement Through Requests and Subscriptions.—Substantial amounts can be raised through the active energy of an interested few. There is something undoubtedly which stirs the blood of enthusiasts in holding up the public on tag days, and in pursuing tight-fisted merchants for subscriptions, headlong out of back shop doors, but there must always be something akin to polite blackmail about these methods. In face of the immense amount of good that has been done in this way it is hardly proper to condemn them, but after all does not the old-fashioned sounder business method of offering food or entertainment promise greater returns in good will.

The Necessity of Considering the Question of Costs.—All improvement costs something of time, money and energy. What is worth having is worth

paying for and worth striving for. The intelligent citizen is willing to grant that town improvement is desirable and is not to be found fault with if he raises the question of how it is to be paid for at a cost not out of proportion with the benefit received. Enthusiasm should not run ahead of business sense. Refusal to reckon ahead is a rock upon which many an improvement enterprise has come to grief. There must be organization all along the line,[1] else our schemes will fail just where they should score their most convincing point. The promoters of improvement must be able not only to show the soundness of their suggestions, but must be able to present a sound plan for financing their schemes.

Financing Special Public Improvements.—As a general thing cities are not in a position to finance from the city treasury,[2] offhand, even if they would,

[1] Cf. *Carrying Out the City Plan,* by F. Shurtleff, in collaboration with F. L. Olmsted.

[2] The largest part of the city's revenue is gained from the general tax, whereby each citizen is required to pay an amount proportional to the amount of property which he possesses. The general tax is of two kinds, (1) that on personal property; (2) that on real estate, lands, and buildings. In some states a separate poll tax is levied upon all voters.

Other important sources of municipal revenues are the franchises of public service corporations, and the revenues derived from the operation of public utilities such as gas, water, and electric light plants. In addition there are the fees received from the licenses of theaters, peddlers, and so forth.

all of the improvements which many of the citizens would like to see made. To spend in any direction at random would mean a breaking up of the business plan under which the corporation is operating.[3]

If the improvement contemplated necessitates but a slight change in the policy of some special department of the city administration, as for instance, the lighting of parks or the establishment of increased recreation facilities, at some point therein, this may be brought about by directing the attention of members of the Park Board to this improvement, and they, having a definite appropriation from the city budget wherewith to meet the regular park expenses, may direct the park superintendent to carry out the improvement voted, and pay for it out of the park funds.

When the improvement is farther reaching, and carries with it considerable expense, such as the straightening and widening of streets; or the establishment of a large park, it is obvious that the matter cannot be handled in the simple fashion just described. The methods open for the raising of funds would then be as follows: either (1) by an increase in the general tax levy; (2) by a special

[3] "The allowances for expenditure in each one of the various Municipal Departments are usually made out twelve months in advance by the mayor and passed through the common council, or as in some places, made out by a separate board with power." This financial plan is called the City Budget. Am. Civic Gov. Beard. P. 129.

local assessment upon property holders whose property is particularly enhanced by the improvement; (3) by the issue of city bonds, or (4) as is not at present general, by the process of excess condemnation.

A discussion as to the policy to be recommended for extended improvements leads to a consideration of the relative merits of the methods named.

General Taxation and Special Local Assessment.—The final decision as to the adopting of a policy to create an improvement and pay for it by taxation rests with the citizens themselves at election. For an improvement which affects the whole community, as the creation of a civic center or a municipal playground system, a general tax levy may be proper. But when the benefit is localized as in the laying of a new pavement upon a certain street, or in the making of a park in a particular neighborhood, the method of special assessment is coming to be regarded as more logical. "Where there is local benefit there should be local assessment."[4] It is obviously unfair, say the advocates of special assessment, to distribute the burden of paying for an improvement over the whole city if the main benefit falls only within a restricted radius. To render the payment of a special assessment easier for the property holder,

[4] *The Planning of the Modern City,* by M. P. Lewis, p. 364, Chap. Financing a City Plan.

the amount collectable is commonly spread over a term of years.

In the process of assessment, it is a matter of importance not only that the assessment be justly imposed with regard to property holders along the immediate line of improvement, but that those off of the actual path of improvement, who benefit by a rise in the value of their property, should meet their share of the expense. In large cities, where the problem of adjusting such assessment becomes very complicated, there is required a special body for this purpose.[5]

Bonding for Improvement. Use of the City's Credit.—Improvement often involves the creation of things which are of lasting benefit. Moreover, the cost of large improvements, such as bridges, public buildings, and the like is such that, to pay for them by the levying of a direct tax, or a special assessment, even though such a tax or assessment were allowed to be paid in installments, would be to impose an unjust burden upon the present generation of taxpayers. In such a case the method of using the city's credit or its borrowing ability is made use of in the sale of bonds.

The principle of bonds is fairly simple. When an individual borrows money from a bank, he gives the bank a signed note stating that he will pay back

[5] For example in New York City, the Board of Estimate and Apportionment.

the principal and interest for the use of the money during the time that the note is running. The principle of bonds is similar. The city is the borrower, and at regular intervals it pays interest to the citizen who buys the bond. After a certain period, which is called the life of the bond, the principal is paid back to the purchaser, a definite amount of money being set apart each year by the municipality toward what is called the "sinking fund," which is used for the final payment. It may seem desirable to arrange that the bonds be retired at different periods rather than all at the same time, in which case they are called *serial* bonds.

Excess Condemnation.—Briefly stated, the right of excess condemnation implies the power of the municipality to take by condemnation, land bordering a proposed improvement, to an amount greater than is needed for the actual improvement; and, by a subsequent sale after the improvement is completed, of the property so taken, to realize on increased values, a portion or perhaps all of the cost of the improvement made. Property thus taken is declared to be taken for a public use. Though theoretically it has wonderful possibilities, the spirit of the ruling is so contrary to the spirit of individual rights as defined in the Constitution of the United States, as to bring about various rulings in various states in regard to its legality.

An example of its successful operation in

America is frequently cited in the instance of Montreal,[6] where a large profit was said to be realized by the city through the exercise of this right. In London the saving to the city in the improvement in Queen Victoria Street is optimistically reported to have been 83%, and in that of King's Way, 87%.[7] Every result, however, has not always proved as fortunate as in the cases cited.

The plan of excess condemnation is only being tried out in this country. If it proves successful, and becomes generally permissible, a new way bids fair to be opened for important public improvement projects.

One great benefit would result from its use. It is common after a street is widened or changed in outline, under the present method of simply condemning property and awarding damages, to find small left-over pieces of land bordering the improvement made, which, because of their limited size and peculiar shape, are severally of little value. Collectively, they are of great value. Under the right of excess condemnation the replotting and sale of such left-over pieces could be accomplished at an increased price.

Summary.—Many improvements are bestowed upon the town as gifts, but the habit of expecting all improvement to come in this way is improper.

[6] *Excess Condemnation,* by R. E. Cushman, p. 144.
[7] *City Planning,* by C. M. Robinson, p. 256.

The question of how the cost of improvement is to be met is not to be overlooked. The advocates of improvement should be able to present a feasible plan therefore, if the moral and the financial support of others is to be counted upon. Special public improvements are financed in the following ways: Minor ones may be financed by appeal to some special department of the city administration; large ones by general taxation, special local assessment, the sale of municipal bonds, or by the process of excess condemnation. The method to be followed is dependent upon the circumstances surrounding each case.

CHAPTER XVII

THE CIVIC SPIRIT AND ORGANIZATION FOR TOWN IMPROVEMENT

THUS far in our study the endeavor has been to discover points at which town improvement might be begun. We are now to consider the ways of rousing interest and of organizing for the task.

The human element is the dynamic force behind all improvement. Even after the will to do is stirred, there remains the matter of guiding action, in order that laudable energy may not be misspent.

What the Civic Spirit Means.—Loyalty is among the greatest of human virtues. Civic spirit implies loyalty to the community—to the municipality in which we make our home, under whose laws we agree to be governed, to whose support we contribute, and of whose good name we are justly jealous. Loyalty presupposes a willingness to give of time, energy, and financial support if called upon to do so. Civic loyalty is but a part of that larger loyalty to Country for which lives are willingly offered in time of need.[1]

The Civic Spirit manifests itself in many ways,

[1] An inspiring treatise on this subject is *The Philosophy of Loyalty*, by J. Royce.

in the effort of the public official who works with clean hands for the good of the town, in live commercial organizations and improvement societies, and in the devotion of individuals working on sometimes in the face of discouragement, with a vision ahead.

For a town all things are possible. The single need is of some person or group of persons who have faith in the outcome. Improvement cannot come from without, nor be wished upon the town like a magic mantle in a fairy tale; it must come from within—from the loyalty and devotion of the citizens.

From the medieval town we get a revelation of the very finest example of the civic spirit, an inspiration to all modern town improvers. This came into flower at the time of the Gothic Cathedral building, at its height from the 11th to the 13th centuries in the towns of northwestern Europe. From the purses of all came contributions of money, everywhere the citizens giving as they were able; each trade added its labor to the cause, the masons, the workers in glass, the wood carvers, the metal fashioners, all working in harmony, until the wonder in stone rose, as it were, out of the hearts of the citizens, "to the Glory of God and the Glorification of the Town."

To-day opportunity for such civic devotion is no less apparent. We need but to look about us.

The Necessity of Business-like Methods.—It is not to be denied that the mere suggestion of a move for town improvement sometimes calls forth an expression of suspicion from a certain type of so-called hard-headed business man, and a few other private citizens. What is the point of view of those who look askance at the effort?

The hard-headed business man has been known to condemn it as impracticable, and unnecessary; the suspicious private citizen sees in it only an increase in taxes. The situation is not lightly to be passed over, for it is serious. It calls for earnest endeavor at swinging opinion, if town improvement is not to meet with discouraging progress.

If considered rightly, just here is an opportunity of proving that improvement *can* be conducted upon *practical* lines, and that it is the improvers' aim to do so, and that town improvement is itself *profitable.*

When the business man can be brought to see that the number of yards of goods sold over the counter depends in a real way upon town improvement, then he will be ready to give the movement his support. Let us imagine the case of a town which needs improvement in the quality of its water supply. An epidemic in such a town would have a decided effect upon business. Or let us imagine a part of the business district made more usable and attractive by an improvement in the street pave-

ment or by proper lighting. The list of possibilities is infinitely long. The objector's platform falls away when he is face to face with fact.

Likewise the suspicious taxpayer *must* be brought to see that the amount of benefit gained for himself and his family by town improvement of the proper kind far outweighs his share in the expense.

The aim then should be for that kind of improvement which shows no waste of effort or of finances, whereby the city may be made a more effective working organism. Business-like efforts stimulate a business-like carrying out of purpose. Wasteful methods in town improvement are no more excusable than wasteful methods in business!

Individual Effort.—The helping along of town improvement in various lines is often to be laid to the credit of one interested person. Individual effort by its very concentration is sometimes able to get results with greater dispatch than if divided among many. Many towns owe to one person their real beginning in improvement. A northern Ohio city, which now possesses one of the most attractive park sites[2] in the country has to thank for this possession one man, an attorney in that community, who foresaw the opportunity of a handsome park where steel industries were about to settle. The benefit of the park to that particular city has been inestimable.

[2] Reference to Mill Creek Park, Youngstown, Ohio; the individual being, Mr. Volney Rogers.

One of the most notable examples of individual effort for improvement which can anywhere be found for the encouragement of others, is the work of Mrs. Isaac L. Rice of New York City, who silenced the noise in New York harbor. Herself annoyed by the disquieting whistles of the boats, and realizing the multiplied annoyance to hospital inmates and others, she took up single-handed, a crusade to bring the noise nuisance to an end. Persecuted by the boatmen, who tried to make it as unpleasant as possible for her and to intimidate her in her effort by flashing searchlights into her windows and producing jarring discords close to her home overlooking the river, she at length won a fight, which resulted in nation-wide appreciation of the fact that comparative quiet can be maintained where superfluous noise is harmful. Of this kind of individual effort we have instances in other lines to draw upon for our own encouragement. Each citizen may find in town improvement a field of limitless helpful attainment.

The Value of Organization for Town Improvement.—Valuable and interesting as is the work wrought by individuals, it is readily appreciated that the work of a number of persons banded together gains from the zeal of each, and suffers less from the suspicion of being backed by "crank" methods. Combined effort gains dignity and

strength in proportion to the number of persons enrolled.

The establishment of a definite organization among individuals is therefore, as time goes on, almost as necessary to final accomplishment as fixedness of purpose.[3] The cause, as a rule, will be helped if the organization is of formal rather than informal character.

In a number of towns and cities stimulus has been gained from the existence of sectional organizations working in friendly competition, such as neighborhood clubs, ward improvement societies, and the like. There is, however, one word of caution to be interposed regarding those whose interest is entirely local, and that is that local zeal should not carry its members to the point of blocking the work of rival organizations. Local organization should be kept, but it is at its best when united under a larger town organization, in order that in sectional interest, the larger interest of the town as a whole may not be lost sight of. As in our city it is our desire to have a system of streets, not unregulated traffic ways, so in town improvement we would have an organized whole whose parts are working towards a common end, without

[3] The first permanent organization of this kind in the country was the Laurel Hill Assn. of Stockbridge, Mass., founded in 1853. See constitution of this organization which offers helpful suggestions, and a description of its work printed by permission, at the end of the book. P. 234 *et al.*

dissipation of energy, and without unhealthy rivalry. Herein lies the benefit to be derived from a community chorus and a community pageant, in which the whole town takes a part.

The Creating of an Improvement Organization.—It is a good idea for those specially interested in the forming of an organization to plan far enough ahead that their ideas and intentions are definitely formulated against the time when others are invited to enroll in the movement.[4] One or two meetings at the homes of persons primarily interested, may well be held with the purpose of talking over definite concrete methods of procedure and the formation of the organization. As the saying is, first *plan the work,* and then *work the plan.*

The formation of a constitution for the society, is one of the first steps. In this the name and objects of the society should be definitely stated, and regulations given regarding membership. As the membership should be made as large and widespread as possible, dues should be comparatively low. Twenty-five cents a year is not too low, as the funds of the society are to be raised by other means, and dues are intended primarily to attach significance to membership in the organization.

The Work of Organizations.—From every state in the union there come encouraging records of strides along town improvement lines, due to the

[4] See *Community Development,* by F. Farrington, Chap. IV.

work of various organizations. The impetus gained originally from individuals or from societies who regarded town improvement as complete when the town's face and hands had been washed, has been such as to carry them beyond this first stage. They realize with a wider attitude of mind that "more than a scrubbing is needed to make Bill a manly and model youth." It is a good plan first to turn attention towards ends involving little expense. Each set of individuals should first prove itself with small tasks, and thereafter take up larger problems.

In considering the work and spirit of a few of the many improvement organizations, it will be interesting to note a single quotation chosen almost at random from the splendid list of reports prepared especially for the American City by the Civic Chairman of the 45th State Federation of Women's Clubs. Mrs. Sarah S. Platt Deeter of Denver, Colorado, thus ends her report:

Do all your work cheerfully and patiently;
If you fail, do that splendidly.
Above all, adopt the old preacher's definition of perseverance:
Firstly, to take hold; secondly, to hold on; thirdly, never to let go.

Special committees of Associations of Commerce and city clubs have been effective agencies of improvement.[5]

[5] It is appropriate to call to mind such well conducted

In a good many communities the Boy Scouts organization have frequently lent a helping hand in special work, as for example in the systematic inspection and reporting of sanitary conditions.[6] In a campaign for improvement special attention should be given to soliciting the aid of local newspapers, and in securing interesting illustrated lectures on different phases of subject. The extension departments of state educational institutions may be looked to for advice and help.

There are to be found a number of State and National organizations aiming at civic improvement in its various branches. Among these are the American Civic Association, which is an outgrowth of the American Park and Outdoor Art Association, the Civic Sections of the National Federation of Women's Clubs, the various State Municipal Leagues, the American Society of Municipal Improvement, the American City Planning Institute, the National Housing Association, the

movements as that of the City Beautiful Campaign which has been conducted for several years by the Rotary Club of Davenport, Iowa. Several hundred dollars were offered yearly in a number of cash prizes for the best examples of home ground planting and flower and vegetable gardens. "Make your neighbor sit up and take notice" and "You win if you loose," were slogans used with effect. One-third of the homes in the city, it is said, became enrolled in the contest.

[6] Vid. Survey Blank; Junior Sanitation League, Decatur, Ill., p. 227.

SURVEY BLANK[2]

Junior Sanitation League

To John F. Mattes, Commissioner of Health and Safety City of Decatur:

I inspected on (date).....

the property at (street and number).....

.....owned by

....., occupied by

....., and find the following conditions:

(Check existing conditions)

- ☐ 1. Manure pile.
- ☐ 2. Garbage.
- ☐ 3. Tin cans.
- ☐ 4. Ashes.
- ☐ 5. Weeds.
- ☐ 6. Full privy vault.
- ☐ 7. Tumble down shed.
- ☐ 8. Old lumber and rubbish.
- ☐ 9. Dirty chicken or barn yard.
- ☐ 10. Neglected well.
- ☐ 11. Uncovered rain barrel or bucket.
- ☐ 12. Tumble down fence.

- ☐ All conditions satisfactory.
- ☐ Backyard flower or vegetable garden.

Remarks:.....

.....

.....

Respectfully submitted,

(Signed)

Name of Inspector.....

Section No.....

[2] Printed by permission.

American Institute of Architects, the American Society of Landscape Architects, and others.

City Planning.—Prominent among efforts for town and city improvement is the city planning movement. It is really a new municipal interest, but the outgrowth of the need for organization in one of the oldest of arts—that of town and city building. The rapid growth of towns and cities in the last century has produced startling and at the same time grave results. The framework and physical equipment of the city has been created haphazard to fit immediate rather than future needs. City Planning or *Town* Planning as the term is used in England, is the "attempt to exert a well-considered control on behalf of the people of a city over the development of their physical environment as a whole." [1] It is, to put the matter simply, "the substitution of order for chaos in city growth."

The term "city planning" suggests possibly to the layman the creating of towns and cities out of whole cloth. It is rarely that this opportunity is to be encountered. Its scope is more usually that of exerting remedial measures, and in guiding the new growth of existing communities.

The work of city planning in America has in itself been in the process of evolution. It required

[1] Definition. F. L. Olmsted. *City Planning,* Ed. by John Nolen, p. 1.

a term of years for the effort to live down the idea that the movement meant anything other than the "city beautiful." Methods, too, have sometimes been at fault. Too often, after obtaining expert advice—embodied in a handsome volume, and accompanied by expensive plans, all has been thrown aside or "put into cold storage" when the cost of contemplated improvements was realized and the first burst of enthusiasm had subsided.

When properly considered and sanely undertaken city planning is seen to be a movement potent of incalculably beneficial results—a movement of noble and extremely practical purpose for towns and cities.

Carrying Out a Plan for Town Improvement.—Talk is cheap, and printer's ink a commodity of little greater value. Unless improvement can be put into action and carried through, public interest and elaborate financial schemes count for nothing. Town improvement schemes do not stand shelving. Whether large or small they should be put through while they are warm. The work of improvement must be carried on in the light—people are suspicious of what they cannot see.

The greatest possible plea for town improvement will lie in the plea of economy. Money talks never more eloquently than in schemes for town improvement. Improvement need not imply elaborate expenditures. As a representative from

Pennsylvania said at a recent improvement conference—"Train the people to think in mills rather than in millions."

People favor constructive rather than destructive planning. Propositions which are constructive in character are much more likely to be acceptable than those which involve a great amount of tearing out before construction can be begun.

The responsibility for the execution of plans for improvement should be definitely located in the hands of an individual, official or clearly defined group which is to see the work through. If the work be of size and great commercial importance, a Planning *Commission* for its carrying out should be appointed if possible.[8] Upon the personality and integrity of those in direct charge will depend the success of the movement. Since in the hands of the citizens lies the real impetus of any independent movement, it is to the people of the town that the appeal should be made, and from whom the real support should come.[9]

[8] State law and charter amendments have frequently been necessary to provide for the establishment of local city planning Commissions. In an increasingly large number of states this is being done. For progress made, vid. *Carrying Out the City Plan,* by F. Shurtleff and F. L. Olmsted; also *What a City Planning Commission Can Do,* pamphlet by F. Shurtleff.

[9] *How to Organize a City Planning Campaign,* by F. L. Olmsted. Reprint 102, Am. City.

Summary.—A proper civic spirit expresses itself in a willingness to do for the town. It is needful that the work of improvement be characterized by business-like methods in order that it may gain support. Though individual efforts count for much, organized effort is capable of still more. All work should be carried on cheerfully and patiently.

The city planning movement is prominent among the present-day movements for improvement. Its aim may be defined as forethought applied to the creation of cities.

In putting a plan for town improvement into action, the main points to be kept in mind are (1) that the plan should be carried through while the idea is warm; (2) that improvement schemes should be carried through in the light; (3) that the plan be economical in its proposals, and (4) that responsibility for conducting and carrying out plans for improvement should be definitely located in order to secure their accomplishment.

CONCLUSION

In our consideration of town improvement we come at length, like a graduating class, to the time when the valedictory is pronounced, and those who have been together, go forth to put into practice the best of what they have learned.

These principles of town improvement represent the threshold only. We have considered some, not all, of the methods and ideals, but it is hoped enough to stimulate thought and effort.

It is said that the citizens of Athens swore allegiance to their city in a remarkable oath, which was as follows:[1]

We will never bring disgrace to this, our city, by any act of dishonesty or cowardice, nor ever desert our suffering comrades in the ranks; we will fight for the ideals and sacred things of the city, both alone and with many; we will revere and obey the city's laws and do our best to incite a like respect in those above us who are prone to annul or set them at naught; we will strive unceasingly to quicken the public's sense of civic thought; thus in all these ways we will trans-

[1] C. H. Huff, Greater St. Louis, in the St. Louis *Star*.

mit this city not only not less, but greater, better, more beautiful than it was transmitted to us.

At the present time the duty of the citizen to his community is no less strong and compelling. In the chance for the improvement of towns and cities lie fields of boundless opportunity. To recall a thought already expressed; towns and cities stand in need of continual change as modes of life change and expand. *New needs must be met.* What more inspiring to the citizen than the task of taking upon himself his share in guiding this growth, typical as it is of the onward and upward march of civilization!

THE TOWN OF NO GOOD

Kind friends, have you heard of the town of No Good,
On the banks of the river Slow,
Where "some time or other" scents the air,
And the soft Go-Easies grow?

It lies in the valley of What's the Use,
In the province of Let-Her-Slide;
It's the home of the reckless "I don't care,"
Where the Give-it-ups abide.

The town is as old as the human race,
And it grows with the flight of years;
It is wrapped in the fog of the idler's dreams.
Its streets are paved with discarded schemes and sprinkled with useless tears.

—From *The Bulletin*, Oakland, California, April, 1915.

APPENDICES

I. THE LAUREL HILL ASSOCIATION [3]

"In 1853, a Village Improvement Society, the first permanent association of the kind in the United States and perhaps in the world, was organized as a result of long and untiring effort by Miss Mary Gross Hopkins, afterwards Mrs. J. Z. Goodrich. To this society, which was incorporated under the name of THE LAUREL HILL ASSOCIATION OF STOCKBRIDGE, the premises above described were conveyed.

"The work done by the association in improving and embellishing the village has transformed it from the untidy condition common to New England as well as other American towns a half a century ago, to one of the prettiest and best ordered villages in the country. Moreover, the indirect influence of the association in promoting and cultivating the aesthetic taste of the community can hardly be estimated. From gifts and bequests it has an invested fund and with the income from this source and from annual subscriptions it is on a solid working basis, and promises as long as efficiently managed to continue to add to the attractions of the village, already unusual."

[3] The historical sketch of the Laurel Hill Association, its constitution, and the pertinent suggestions by a former secretary, which follow, are printed by permission. The author is grateful for this permission feeling sure that from them valuable ideas may be gleaned.

CONSTITUTION

OF

THE LAUREL HILL ASSOCIATION

OF

STOCKBRIDGE, MASS.

Article I

This Association shall be called "The Laurel Hill Association of Stockbridge."

Article II

Its object shall be to improve and ornament the streets and public grounds of Stockbridge, by planting and cultivating trees and doing such other acts as shall tend to improve and beautify the village.

Article III

Members of the Association shall be chosen *viva voce* by the Association; or by the Executive Committee.

Members may be expelled for cause by a two-thirds vote of members present at a meeting of the Association duly called.

Article IV

The annual dues shall be one dollar ($1.00).

Non-payment of the annual dues for two years shall be considered equivalent to a resignation of membership.

Article V

Honorary Members may be elected by a vote of the Association.

Article VI

The officers shall consist of a President, four Vice-Presidents, a Secretary, a Treasurer and an Executive Committee, part of which shall be ladies.

The President, Vice-Presidents, Secretary and Treasurer shall be, *ex officio,* members of the Executive Committee.

Article VII

The President shall preside at all meetings of the Association and of the Executive Committee. In his absence one of the Vice-Presidents shall fill the place. If none of these be present the chair shall be occupied by a President, *pro tempore.*

Article VIII

The Secretary shall keep a list of the members of the Association and a correct record of its proceedings in suitable books; shall make a report at the Annual Meeting of the doings of the Association for the preceding year, and shall give notice of all meetings of the Association, and of the Executive Committee. The notice of committee meetings shall be written or printed, and shall be mailed, or otherwise delivered, not less than a day before the meeting.

Article IX

The Treasurer shall keep all moneys belonging to the Association, report the state of its finances at each monthly meeting of the Executive Committee and whenever a report is officially called for, and disburse its funds only in accordance with Article XIV.

Article X

The Executive Committee shall not be less than fifteen or more than twenty-five in number, exclusive of members *ex officio*, and shall have power to fill vacancies or add to its number within the last mentioned limit.

Article XI

The Executive Committee shall employ all laborers, make all contracts, expend all moneys, direct and superintend all improvements by the society at its dis-

cretion, and procure speakers for the anniversary meeting. It shall hold meetings monthly from May to October, and as much oftener as it may deem expedient. It shall also have power to institute a system of premiums to be awarded for planting and protecting ornamental trees and for other improvements.

Article XII

At the meeting of the Executive Committee next preceding the Annual Meeting of the Association, a committee to be known as the "Nominating Committee" shall be appointed to report at such Annual Meeting a list of Officers and of the members of the Executive Committee proposed for the coming year. At such Annual Meeting a ballot for officers and members of the Committee shall be had, and such persons as shall be chosen shall hold office until others shall have been elected in their places.

Article XIII

The village shall be divided into districts convenient for the work of the Association. Committees of three persons for each district shall be appointed. Such committees shall have charge within their respective districts of the work authorized by the Executive Committee, and of the appropriations for such work. Special committees selected from the Association at large may be appointed by the Executive Committee.

The Nominating Committee appointed under Article XII shall recommend to the Executive Committee

at its first meeting the names to compose the different Committees.

Article XIV

No bills for labor or material shall be paid unless approved in writing by the Supervisor or Special Committee procuring the same, and no bill shall be so approved which is for a sum greater than the appropriation for the special purpose covered by such bill.

Article XV

The annual meeting of the Association shall be held at some convenient place in the village of Stockbridge in the morning of the first Thursday in September in each year. Notices of said meeting, stating time and place, shall be posted at the Post office at least seven days prior to said meeting. Other meetings of the Association may be called by the Executive Committee, on seven days' notice as above prescribed.

Article XVI

The Anniversary Exercises of the Association shall take place on Laurel Hill in the afternoon of such day in September as the Anniversary Committee may appoint, or, in case of bad weather, at such time and place as may be designated by the Anniversary Committee.

Article XVII

At the Annual Meeting of the Association the Executive Committee shall report the number of trees planted under its direction, and the doings of the Committee in general. This report shall be entered on the minutes of the Association.

Article XVIII

Ten members present at any meeting of the Association and five members present at any meeting of the Executive Committee shall constitute a quorum for the transaction of business. The Committee shall have power to adopt By-Laws for the Association not inconsistent with this constitution.

Article XIX

No debt shall be contracted by the Executive Committee beyond the amount of its available means.

Article XX

This constitution may be amended by a vote of two-thirds of the members present at any meeting of the Association; but no amendment shall be acted upon, unless notice of such proposed amendment briefly describing the nature thereof, shall have been given with the notice of the meeting.

"Letters requesting information and advice as to the proper method of forming and managing organizations like this little association are constantly received from all parts of the Union.

"As now amended, the present modest constitution furnishes substantially the information thus sought. The following suggestions by a former Secretary of the association may be added.

"1. Funds to a considerable amount to serve as a nucleus for investment as well as for immediate use, should be secured before starting work.

"2. Annual subscriptions should be obtained, and when practicable pledged some years in advance, so as to insure the permanence of the organization and the continuance of its work.

"3. Endeavors should be made to interest all classes. Children might be permitted to set trees themselves under direction of the Association.

"4. It is well to begin operations at some point in which the whole community is interested, such as the Cemetery, or the Public Green or Square. Avoid too much at once.

"5. To keep up the public interest in the association and to look after its work, it is important to have monthly meetings of the executive committee. These are provided in the Laurel Hill Society's Constitution. In very small communities, the meetings might be pleasanter and less formal if held at the residences of members instead of a public hall."

II. QUESTIONS IN REVIEW OF THE TEXT

Introductory.

1. What human aims, in brief, do towns and cities represent?

2. What, roughly stated, is the general proportion of *city, town,* and *country* population in the United States?

3. State the ratio of *urban* to *rural* population in the United States as given in the 1910 Census report, giving the limitation of the term *"urban."*

4. Explain the significance of the term *"urban drift."*

5. What is the relation of physical make-up to the inner life of the town or city?

Chapter I.—Forces Creating the Town.

1. What five main forces can be named as influencing the creation of towns?

2. Comment upon the influence of each force specifically.

3. From what you know of history what is to be said of the manner of death which towns and cities may undergo?

4. In how far is the argument sound that towns cannot be arbitrarily created and prove successful?

5. Trace the parallel which exists between the life cycle of a town and that of a living body.

6. Comment upon the subject of the *Town* as an *Organism.*

7. What can you say as to the individuality of Towns and Cities?

Chapter II.—The Town Plan in General.

1. Describe as accurately as possible by means of a diagram the general plan of your home town.

2. By means of another diagram of your home town illustrate the location of the six groups of activities named in the early part of the chapter.

3. What is the distinction to be noted between *location* and *site?*

4. Describe various typical locations for towns according to purpose. From reading or your own experience, name towns which illustrate the points mentioned.

5. Comment upon the relation of site to civic beauty. In how far may a community hope to attain beauty regardless of its site?

6. Comment upon the relation of site and topography to the town's layout.

Chapter III.—The Street System.

1. What economic arguments may be urged for an efficient street system for a town?

2. What four main types of street systems are to be found in towns and cities? Give an account of

the development of each type with illustrations, if possible.

3. Describe the circumstances under which each type named is to be recommended for use in the laying out of towns or parts of towns.

4. Give a classification of the streets of the town or city according to use.

Chapter IV.—Traffic Circulation.

1. What is to be said of the relation of traffic circulation to conditions of business and daily living?

2. Comment upon the problem of modern transportation as compared with that of a century ago.

3. Describe briefly the kind of traffic to be accommodated in the streets of the town.

4. Mention specifically the causes of traffic congestion.

5. What three requirements were mentioned for streets, if they are to meet properly the demands of traffic?

6. Describe in detail how the width necessary for streets may be estimated, illustrating with diagram, various types of streets in cross section.

7. What methods are to be recommended for meeting traffic problems and bringing about improvement in traffic flow?

8. Comment upon the subject of traffic regulation for comfort and safety.

Chapter V.—The Railroad and the Town.

1. Weighing the convenience and the inconvenience

involved, what can you say of the justifying value of the railroad to the town?

2. What may be said upon the subject of the *Town's* rights with respect to the Railroad, and the *Railroad's* rights with respect to the Town?

3. Comment upon the subject of the Railroad and Town Plan.

4. Comment upon the subject of the Railroad as the *Entrance into Town.*

5. What are the advantages or disadvantages of a union station, and describe locations which may be recommended for it?

6. Make suggestions for improvement in regard to the form, appearance and setting of the railroad station building.

7. Make suggestions for the improvement of railroad station grounds.

8. Comment upon the subject of dead end streets occasioned by the existence of the railroad.

9. Comment upon the subject of grade crossings in the town, stating what methods are to be recommended in securing their elimination.

10. What may be said as to the value of coöperation in securing improvement in conditions which exist, between the railroad and the town?

Chapter VI.—The Waterfront.

1. Explain something of the scope of waterfront improvement for towns and cities.

2. What principles are to be kept in mind regarding use and beauty at the waterfront?

3. What opportunities for waterfront improvement are offered in the town with a small stream?

4. What opportunities for waterfront improvement are offered in the town situated on a river?

5. What opportunities for waterfront improvement are offered in the town on lake or ocean?

Chapter VII.—Parks and Other Public Open Spaces.

1. In what sense are Parks and Open Spaces at once the earliest and the latest conscious products of Civic Art?

2. Describe briefly and make comments upon the comparative size and characteristic location of the various kinds of public open spaces which are to be found in towns and cities.

3. Briefly describe the origin and character of the public or ornamental square and state principles which should be followed in its layout and equipment.

4. Describe briefly the character which minor open spaces may assume in the simple street widening for the purpose of enhancing abutting property, in the city block park, and in the street remnant, giving principles to be followed in the layout and equipment of each.

5. What can you say of the justifying value of the landscape or country park for a community?

6. What considerations are to be kept in mind in choosing park sites?

7. Is a town always fortunate in having a gift of a park site?

8. Give some principles which apply to the layout and equipment of the landscape or country park.

9. Comment upon the subject of a park *system* for towns.

10. Comment upon the subject of Park Acquisition and Management.

Chapter VIII.—Schools, School Grounds, and School Gardens.

1. What can you say to the importance to-day of Public Schools in the life of the community?

2. Make mention of the principles governing the form, appearance, and equipment of the modern school building.

3. What may be said as to the location and setting of the school building?

4. State the main principles to be followed in school ground arrangement.

5. What recommendations can you make in regard to the planting of school grounds?

6. Comment upon the subject of school gardens.

7. Comment upon the subject of the school as a Community Center.

Chapter IX.—Playgrounds and Neighborhood Centers.

1. Mention briefly the aim and scope of the Playground Movement.

2. Comment upon the history of municipal playgrounds.

3. What, according to the definition given by E. B.

Mero, are we to understand the term "playground" to mean in its large sense?

4. Describe what you would consider an ideal playground system for a town or city.

5. What is to be said regarding the supervision of play on the municipal playground?

6. What methods of procedure should the small community follow in securing public playgrounds?

7. Describe the function and influence of a well-equipped neighborhood center.

Chapter X.—Problems of Sanitation, Water Supply, and Sewage Disposal.

1. Comment upon the statement that the problems of health cannot be separated from the problems of prosperity in material lines.

2. What is the average person's attitude with regard to the subject of the problems of sanitation?

3. Give a brief historical account of the subject of municipal water supply.

4. What two main considerations are implied in the question of water supply?

5. What available sources of water supply for towns and cities can you name?

6. What source would you advise for your own town, and why?

7. Comment upon the amount of water supply needed for communities.

8. Comment upon the advisability of including a town's reservoir as a part of the park system.

9. What difference is to be noted between the terms "sewage" and "sewerage"?

10. What different systems of sewage disposal are in use by municipalities? Describe each briefly.

Chapter XI.—Problems of Health, Comfort, and Safety.

1. What suggestions occur to you for securing air and sunlight for the parts of town where these are lacking?

2. What recommendations can you make in regard to food supply?

3. Give suggestions upon the matter of the collection and the disposal of garbage and ashes.

4. What can you say concerning the value of various waste products?

5. What are to be considered the duties of a Board of Health? Comment upon the importance of the work of this body to the welfare of the Community.

6. Comment upon the general subject of Nuisances and their Control.

7. Comment upon the subject of Smoke and Fumes, and make recommendations for improvement.

8. Comment upon the subject of Winds, Dust, and Street Dirt and make recommendations for improvement.

9. Comment upon the subject of Unnecessary Noise and Bad Odors and make recommendations for improvement.

10. Comment upon the subject of The House Fly and its Control.

11. Comment upon the subject of Fire Waste and make recommendations for improvement.

12. What is the aim and scope of the Safety First Movement?

Chapter XII.—Civic Art.

1. Give what you consider to be a good definition of Civic Art.

2. What is the two-fold scope of Civic Art as noted in the text?

3. What principles are to be recommended in the choice and placing of statues and monuments in the town?

4. What can be said as to the suppression and improvement of billboards and advertising signs?

5. What can be said as to the improvement in the character and placing of shop signs?

6. What can be said as to the elimination of overhead wires and poles?

7. What recommendations may be made as to the improvement of architecture in the business section?

8. Comment upon the subject of building regulation and its scope.

9. What is meant by the term "Civic Center?" State principles which may be followed in regard to the civic center's position and form.

10. Comment upon the subject of guiding and fostering public taste.

11. What is your opinion as to the desirability of

having an "Art Jury" in your town? Explain what its duties would be.

Chapter XIII.—The Equipment and Furnishings of the Street.

1. Why is the Equipment of the Street to be considered an important matter in town improvement?

2. Comment upon the subject of street pavements, stating the qualities which an ideal pavement should possess.

3. Name the types of pavements mentioned in the text, describing the character of each, making mention of desirable or undesirable qualities, and comparing the worth of each for various purposes.

4. Describe the improvement that you think might be effected in the average town in the matter of curbs and gutters.

5. What qualities should the sidewalk possess to fulfill its purpose efficiently?

6. Make specific comments on the subject of street lighting.

7. Comment upon the matter of street name signs and systems of house numbering, making whatever recommendations you think proper.

8. What can be said in regard to the adequate provision of comfort stations in most of our towns and cities?

9. Make recommendations as to other street equipment.

Chapter XIV. — Street Trees and Other Street Planting.

1. Compare ancient and modern cities with respect to the presence of street trees.

2. In what sense may street tree planting be said to be a neglected part of street making?

3. State what arguments you can, justifying the presence of trees on our streets.

4. Under what conditions is the presence of street trees undesirable?

5. In the choice of street trees what considerations are involved?

6. In the placing of street trees, what considerations are involved?

7. In the planting of street trees, what considerations are involved?

8. What suggestions may be made as to the subsequent care of street trees?

9. Of the two methods, private or municipal supervision of street trees, which is to be recommended?

10. Give a list of good varieties of trees suitable for planting along an average residence street.

11. Name some varieties of trees which are commonly used, but make poor street trees. State their faults.

12. What are the principal street tree needs in your home town?

13. What can you say of the planting of shrubs in the side parking?

14. State some of the principles which apply to the planting and care of the center parkings of streets.

Chapter XV.—Among the Homes.

1. In what sense may the home of the average citizen be said to be an important indicator of the life of the community?

2. Comment upon the presence and extent of the housing problem in some cities and state the reason for its existence.

3. What recommendations may be made toward solving the housing problem when it exists?

4. What recommendations come to your mind in regard to the matter of architectural improvement in the average residence district?

5. State a few of the principles which may be followed in regard to the location and orientation of the house on the lot.

6. State the main principles to be kept in mind in planning a general arrangement of the home grounds.

7. Give general rules governing the location of planting on the home grounds.

8. Give general rules governing the choice of plant material on the home grounds.

9. Give five names of plants suitable for each of the purposes named: (a) Trees for Shade and Lawn; (b) Trees for Ornamental Purposes; (c) Ornamental Shrubs; (d) Vines; (e) Herbaceous Flowering Plants; (f) Annual Flowers.

10. Give a few simple directions as to the planting and the care of shrubs, including pruning.

11. Give a few simple directions as to the making and care of the lawn.

12. What are the benefits and advantages to be urged for community planting?

13. Comment upon the subject of clean-up and paint-up campaigns.

14. What room is there for future improvement in the matter of town extension?

Chapter XVI.—Paying for Town Improvement.

1. Why is it obviously necessary that the promoters of improvement should not only be able to show the soundness of their suggestions, but to present a sound plan for financing their schemes?

2. What reasons can you give suggesting that the town should not rely upon gifts as a method of financing improvement?

3. What method is universally made use of by municipalities for the raising of funds for running expenses?

4. What methods may be recommended for financing improvements of a minor character in the town?

5. What methods are to be recommended for financing improvements of extensive character, but of general benefit to the present generation?

6. When is special local assessment advisable in financing public improvements?

7. When is it best to finance improvement by making use of the city's credit, through the sale of municipal bonds?

8. Describe briefly the method of financing special improvement by the process of excess condemnation,

and state the advantages, if any, which would seem to result from this method.

Chapter XVII.—The Civic Spirit and Organization for Town Improvement.

1. Comment upon the Civic Spirit as a synonym of loyalty.

2. Comment upon the civic effort of the Cathedral builders of medieval times, and state in what ways it may be considered an inspiration to modern town improvers.

3. What good arguments in behalf of town improvement can be offered to the skeptical business man or disgruntled tax payer?

4. In what ways may individual effort count for much in town improvement?

5. Comment upon the value of organization for improvement.

6. Give some hints as to methods of forming an improvement society.

7. Comment specifically, from what you have read or from your own observation, upon the value of the work of improvement organizations.

8. Give a definition of City Planning.

9. Comment briefly upon the scope and benefits of City Planning.

10. What general aims are to be kept in mind in putting a plan for town improvement into action?

THE END.

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